BRITISH RAINFALL,
1884.

LONDON
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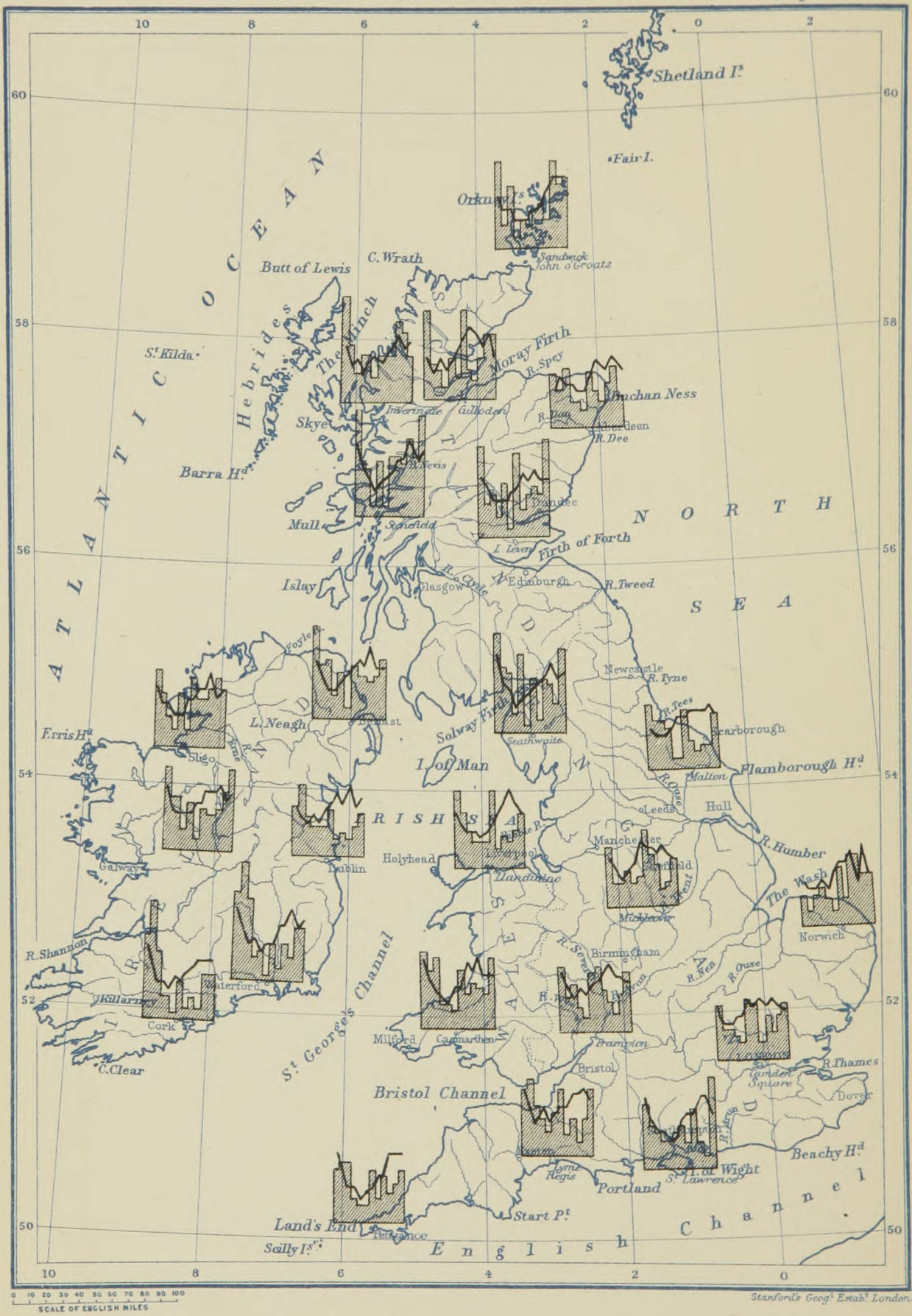
—
1885.

MONTHLY RAINFALL OF 1884.

See pages 158-161.



BRITISH RAINFALL, 1884.

ON

THE DISTRIBUTION OF RAIN

OVER THE

BRITISH ISLES,

DURING THE YEAR

1884,

AS OBSERVED AT MORE THAN 2000 STATIONS IN GREAT BRITAIN AND IRELAND,

WITH ARTICLES UPON VARIOUS BRANCHES OF RAINFALL WORK

COMPILED BY

G. J. SYMONS, F.R.S.,

Secretary of the Royal Meteorological Society; Membre du Conseil de la Société Météorologique de France; Member of the Scottish Meteorological Society; Member of Council of the Royal Botanic Society; Member of Council of the Social Science Association; Registrar and Member of Council of the Sanitary Institute; Fellow of the Royal Colonial Institute; Membre correspondant étranger de la Soc. Royale de Médicine Publique de Belgique; Hon. Mem. Hertfordshire Nat. Hist. Soc., Essex Field Club, &c.

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SIMPKIN, MARSHALL & Co., STATIONER'S HALL COURT.

1885.

BRITISH RAINFALL, 1884.

IF, in 1861, any one had predicted that twenty-five years afterwards the preparation of the report on the rainfall of a single year would (besides extra work for others) occupy the whole time of three persons for six months, one of those persons not infrequently working at it, for from 9 to 12 hours per diem I should have considered the prediction wild in the extreme. But it would have been true; and a high standard of accuracy cannot be maintained without an amount of examination and verification which few persons would credit; I should however be glad if it were rendered possible to secure equal efficiency with rather less strain upon myself.

There are some respects in which the present volume differs from most of the previous ones and to which I wish to call attention. In previous years I have usually been favoured by some of my observers or correspondents with one or more articles upon experimental or other branches of rainfall work—this year not a single one has been received, and therefore I have endeavoured to supply their place by sundry notes scattered all through the book. The small rainfall of the year having had considerable effect upon the level of water in wells, &c., I invited the observers to report any facts within their own knowledge bearing on this question; they have very generally responded to this invitation, and consequently the observers' accounts of the days, months, and year 1884 occupy the very large space of 127 pages, to which I have added a somewhat full account of the drought. I do not begrudge the space or the cost, for the facts are of the greatest interest and importance, and I think it will be freely admitted that whether it be for the drought, for the thunderstorms, or for the great Norfolk rain of September 3rd and 4th, the record of 1884 is well worth all the labour which has been bestowed in its compilation.

G. J. SYMONS.

62, CAMDEN SQUARE, N.W.
June 29th, 1885.

ERRATA IN BRITISH RAINFALL, 1883.

Page [91].—Line 16. For 25 days read 14 days.

,, [101].—Line 18 from bottom omit the two ?.

,, [131].—Line 25– Craigton. There are two gauges there (see p. [186]) and the wrong one was taken. As they agreed within 0·20 the error has no practical effect, but the last three values should be 36·34 5·62 — 13.

,, [189].—Lines 5 and 7—by some strange fatality the "authorities" for the two stations have been transposed—all the figures are correct, but the authority for Scourie is J. Simpson, Esq., and for Cape Wrath (of which there is a charming picture in the Academy), the Board of Northern Lights.

,, [193].—Line 3 from bottom. For 47·71 *read* 47·81.

ERRATUM IN BRITISH RAINFALL, 1884.

The short article on page [144] should have been on page [147].

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REPORT.

General.—I am glad to be able to state that to the best of my knowledge and belief the rainfall organization is now in a more efficient condition than it has been at any previous period. There are, however, many things yet to be done and to some of them I shall call attention in the course of this report.

Rules for Observers.—I am sorry to find that it seems impossible to induce *all* observers to read and act in accordance with *Arrangements for the Systematic Observation of Rainfall.* I am always glad to supply any number of copies gratuitously, and there are only eight pages to read. The great majority of the observers know them perfectly and obey them loyally, but there are some hundreds who fail in one or more points. It seems a pity for me to be obliged to write a personal letter to each, and yet absolute uniformity of practice must be ensured.

Days with Rain.—This is one of the minor details respecting which some observers are careless, but I think that the records are improving in quality; they would be perfect if every one who professes to keep a *daily* record would visit his gauge every day instead of *imagining* whether there is anything in it or not. Inaccuracy in this respect does not affect the *amount* of rain but it is not the less desirable that improvement should take place, for, as regards Public Health, and Health Resorts, the frequency of rain is nearly as important as its amount.

Inspection of Rain Gauge Stations.—This is a very important branch of the work, and has received all the attention which I could give, but it is much to be desired that it be greatly developed. It is not merely, or perhaps even chiefly, the detection of bad, or badly placed, instruments, but during a visit the observer and inspector each gains knowledge, and the interest of the former in his work is almost always heightened, and an improved quality of observations is generally ensured.

Instruments.—The subject of self-recording rain guages has received further attention and is reported upon in a subsequent separate

article. I am sorry to find that there are still a few stations provided only with the three-inch float rain gauge (Fleming's). Its inaccuracies have been pointed out by the Rev. C. H. Griffith (See *British Rainfall* 1868 p. 22, 1869 p. 27, and 1870 p. 13) and by myself on page 27 of last year's volume.

Evaporation.—As I stated many years since, I have not time myself to go elaborately into this subject, but as the Rev. C. H. Griffith was unable to continue the observation of the evaporation from the large tank (see *British Rainfall* 1870, p. 178) at Strathfield Turgiss, it was removed to Camden Square early in 1885, and the amount evaporated has been measured every day since.

Mean Monthly Rainfall.—The splendid data for a discussion of this subject afforded by the tables which I prepared two or three years since for the Meteorological Council have not yet been utilized. Possibly now that so much time has elapsed it may be wiser to await the close of the lustrum 1881–85, and then work from the 20 years 1866–85.

Rainfall on Ben Nevis.—I am still without any returns from this observatory.

The Nunes Bequest.—I am glad to be able to report that only one of the stations furnished with a gauge from this fund has entirely failed. In that case the observer has left the country and the gauge cannot be traced. A few records are imperfect through various causes, but the following valuable series remains—valuable not because of anything very remarkable in the records themselves, but because the localities were previously without observers, and these records fill important gaps.

Rain Returns for 1884 *from Stations supplied with gauges out of the Nunes bequest.*

Division.	County.	Station.	inches.
II.	Kent	Lower Walmer	25·63
,,	,, ...	Sevenoaks (Wrotham)	25·36
,,	,, ...	Maidstone (Bicknor)	22·65
,,	Hants	Emsworth (Redlands)	21·91
III.	Huntingdon ...	Alconbury	17·20
V.	Devon.....	Holsworthy (Cookbury Week)	40·31
,,	,, ...	Bideford (Hartland Abbey)	39·03
,,	Somerset	Wells (Westbury-sub-Mendip)	30·81
VI.	Gloucester	Andoversford (Hampen)	26·13
,,	Salop	Bridgnorth (Burwarton)	31·34
VII.	Nottingham ...	Newark	16·99
IX.	York W.R. ...	Harrogate (West End Park)	29·11
,,	,, N.R.....	Northallerton (Ingleby Greenhow)	26·95

Division.	County.	Station.	inches.
IX.	York, N.R. ...	Thirsk (Baldersby)	26·31
X.	Cumberland ...	Hesket Newmarket	46·69
XI.	Brecknock	Builth (Llanstephan)	35·34
XVII.	Banff	Banff (Cullen House)	24·70
XVIII.	Inverness	N. Uist (Loch Maddy)	51·98
XIX.	Shetland	Lerwick (Montfield)	51·10
XX.	Kerry	Dingle	54·14
,,	Clare	Six-mile-bridge (Kilkishen)	37·88
XXII.	Leitrim	Lawderdale	45·45
XXIII.	Antrim	Belfast (Glenbank)	49·30

As persons are constantly requesting me to supply a rain gauge gratis, I mention here (1) that I have no funds out of which to do so, (2) that a perfectly accurate *verified* rain gauge can be delivered by parcel post in any part of the British Isles for a sovereign, (3) that no one should buy a rain gauge without a certificate of its accuracy, and (4) that I do *not* sell rain gauges !

Finance.—The following list of subscribers is so much longer than usual that it will lead to wrong inferences if I do not explain that the reason for its length is that I have endeavoured to induce subscribers to remit earlier in the year, partly in order to save the time, trouble and cost involved in second applications for unpaid amounts, and partly because I think it better that the subscriptions towards the cost of rainfall work, should as far as possible be acknowledged in its principal publication. I have in the course of this report and in the subsequent articleon "English Rainfall 1860," and "British Rainfall 1884," pointed out the many ways in which additional funds would enable me to improve and complete my work, but even as it is I am very thankful to the many friends who enable me to produce a volume (of which perhaps I ought hardly to speak, and I would not were it not that it is the observers who make it what it is)—a volume which I am not ashamed to see even by the side of the magnificently printed volumes of the *Bureau Central Météorologique de France.*

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Parnell, J., Esq.	2	15	0
Paulin, T., Esq.	2	2	0
,, W. T., Esq.	2	15	3
Peace, A. L., Esq., C.E.	1	1	0
Peake, R. W., Esq.	1	1	0
Pearson, Col.	1	0	0
,, F. F., Esq.	1	1	0
Pease, A., Esq.	2	2	0
,, Sir J. W., Bt. M.P.	1	1	0
Peckover, Alexander, Esq.	1	1	0
Peek, C. E., Esq.	1	6	0
Pennant, P. P., Esq.	1	0	0
Perigall, H., Esq.	1	0	0
Philipps, Capt. Lloyd	1	1	0
Philpott, O., Esq.	1	0	0
Phipps, P. Esq., M.P.	1	12	0
Pleydell, J. C. M., Esq.	1	1	0
Preston, Rev. T. A.	3	0	0
Prince, C. L., Esq.	1	1	0
Rankin, J., Esq. M.P. (2 yrs.)	2	2	0
Read, R. Esq., C.E.,	1	0	0
Reade, T. M., Esq. C.E.	1	11	0
Rendell, Rev. A.M.	1	0	0
Reynolds, J., Esq.,	1	1	0
Ridout, Rev. G.	1	0	0
Rigby, J., Esq.	1	10	0
Roberts, I., Esq. F.G.S.	1	10	0
,, J. F., Esq.	1	1	0
Robertson, H., Esq., M.P.	2	14	6
Robinson, H. H., Esq.	1	0	0
,, J., Esq.	2	0	0
Robson, J. W., Esq.	1	5	0
Ross, Rev. J. C.	1	13	0
Rylands, T. G., Esq.	1	1	0
Ryves, Rev. G. T.	1	0	0
Satow, S. A. M., Esq.	1	4	6
Sconce, A., Esq.	1	10	0
Scott, J. W., Esq.	1	1	0
,, Mrs.	2	2	0
,, Miss	1	5	0
Senhouse, H. P., Esq.	1	0	0
Shackleton, J., Esq.	1	1	0
Sharples, G., Esq.	1	0	0
Shelford, W., Esq., C.E.	1	1	0
Shiffner, Miss	1	0	0
Shuldham, Col.	1	0	0
Sidebotham, J., Esq., (the late)	1	0	0
Silver, S. W., Esq.	1	1	0
Simpson, John, Esq.	1	13	0
Sing, Joshua, Esq.	2	5	0
Slade, F., Esq., C.E.	1	1	0
Smith, Cecil, Esq.	2	0	0
,, Harold, Esq.	2	2	0
,, Rt. Hon. W. H., M.P.	3	0	0
Smyth, J., Jun., Esq., C.E.	1	10	0
Soames, Rev. C.	1	10	0
Southall, John T., Esq.	1	1	0
,, N., Esq.	1	0	0
Sparkes, J., Esq.	1	0	0
Spence, R., Esq.,	1	1	0
Squire, W., Esq.	1	10	0
Stanton, Miss R.	1	0	0
Stevenson, G. W., Esq. CE. (2 ys)	2	2	0
Stewart, Mark J., Esq.	1	1	0
Stirling, P., Esq. (3 years)	4	0	0
Stokes, H., Esq.	1	0	0
Stone, W. H., Esq.	1	0	0
Stuart, Col.	1	10	0
Stubs, Peter, Esq.	1	4	0
Styring, F., Esq.	1	1	0
Sulivan, Admiral Sir J.	1	0	0
Swindells, R., Esq., C.E.	1	0	0
Taylor, F., Esq.	2	2	0
Thomson, J., Esq.	1	1	0
Tippinge, F. G. Esq.	1	10	0
Tucker, H., Esq.	1	0	0
Tuckett, F. F., Esq.	1	10	0
Twamley, C., Esq.	1	1	0
Tyndall, W. H., Esq.	1	1	0
Vibert, J. E., Esq.	1	5	0
Wainwright, B. C., Esq.	2	7	0
Walker, A. O., Esq.	1	10	0
,, J. D., Esq.	1	11	0
Ward, Col.	2	0	0
,, H., Esq.	1	1	0
Wardale, Rev. J.	1	0	0
Waring, Colonel	1	0	0
Watkins, Mr. H.	1	0	0
,, J., Esq.	1	5	0
Wells, E., Esq.	1	1	6
,, L. B., Esq., C.E.	1	6	0
Wigram, J. R., Esq.	1	5	0
Wildgoose, R., Esq.	1	6	0
Wilkin, F., Esq.	1	10	0
Wilson, J., Esq. (2 years)	1	2	0
,, Thomas, Esq., the late	1	7	0
Wingfield, Rev. C. L.	1	0	0
Woodd, C. H. L., Esq.	1	1	0
Woodhouse, A. J., Esq.	2	0	0
Woollams, Mrs.	1	6	0
Woollett, G. C., Esq.	1	0	0
Wortham, H., Esq.	1	10	0
Wright, Philip, Esq.	1	5	0
Yool, H., Esq.	2	2	0
Young, Colonel Grant	1	10	0
,, W. B., Esq.	1	5	0

[Subsequent receipts will be acknowledged monthly in the *Meteorological Magazine*. Cheques should be crossed National Bank, and Post Office Orders drawn on Camden Road, London, N.W.]

"ENGLISH RAINFALL 1860,"

AND

"BRITISH RAINFALL, 1884."

In the space which we can here devote to the subject it is impossible to do more than epitomize with great brevity the progress which rainfall work has made in the quarter of a century which closes with the issue of this volume. The best illustration of the growth of the work both in quantity and in quality is afforded by the comparison of the publication for 1884, with that for 1860.

For that reason, and also because the table for 1860 has probably not been seen by even one fiftieth of our present readers, we have had it reprinted in fac-simile and stitched into the present volume.

Much as I rejoice over the development from the four-page leaflet to the present volume, I think that the fact which is certainly the source of the greatest pleasure to myself, and perhaps of the most importance to meteorology, is one that many persons would overlook. I refer to the large number of identical records quoted for 1860 and quoted for 1884, in many cases I am delighted to say forwarded by the same person in both years. Eighteen of my earliest correspondents are still reporting from their original stations, and have done so without intermission through the whole quarter of a century. Eighteen synchronous records each of at least 25 year's duration, and each kept throughout by one person, is no trifling contribution to that continuity which is the primary necessity for determining the nature and amount of changes in the rainfall of the country.

If we leave out the personal element and examine the 1860 leaflet with respect to the stations common to it and to the present volume, we shall of course find a much larger number, because in many cases the son has continued his father's record; and, what may be called official records, observatories &c., go on, irrespective of changes in the staff—except when, as is too often the case, the continuity is hopelessly broken by the apppointment of some new

ENGLISH RAINFALL, 1860.

THE Compiler having commenced an extensive investigation into the Rainfall of the British Isles, has experienced much difficulty in collecting the earlier observations from the numerous works in which they are scattered; wishing to prevent others suffering like inconvenience in future, he offers this summary, hoping that year by year the number of stations will increase, and these papers become more valuable in themselves and more worthy the acceptance of the contributors.

The height of the gauges above the ground and above sea level (when known) will be stated, so that the differences due to these causes may be allowed for, if desired.

In order that the correction for altitude above the ground may be better known, *similar* gauges should be placed at different heights, wherever the position is advantageous, such observations being at present very scarce.

The order of the Stations is nearly that adopted by the Registrar General, but the ordinary county boundaries are maintained, and the stations in each county are arranged in the order of their latitude.

The Rainfall in 1860 was considerably above the mean at most stations, the average excess over the mean of previous years being about 25 per cent. It was nearly 50 per cent. in excess in Herefordshire, and some parts of the Lake District, while at Manchester it was only 3 per cent., and at Retford 4 per cent., above it. There does not appear to be any station which had *less* than the usual fall.

G. J. S.

DIVISION I.—MIDDLESEX.

STATIONS.	AUTHORITIES.	Height of Rain Gauge.		Depth of Rain.
		Above the Ground.	Above Sea Level.	
		ft. in.	feet.	inches.
MIDDLESEX—Chiswick	Gardeners' Chronicle	...	...	30.08
Whitehall	Registrar General's Returns	...	...	27.5
Guildhall	W. Haywood, Esq.	2.0	48	28.91
St. John's Wood	Mr. J. Carter,	0.6	161	34.60
Camden Town	G. J. Symons, Esq.	0.4	100	32.24
Tottenham	W. D. Howard, Esq.	0.3	60	34.37
Enfield	Rev. J. M. Heath	24.0	130	34.57

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY—Wonersh, Guildford	W. L. Woods, Esq.	1.0?	...	38.14
Deepdene, Dorking	Mr. J. B. Whiting	2.9	...	37.43
Cobham Lodge	Miss C. Molesworth	0.6	110?	31.57
Weybridge Heath	Gardeners' Chronicle	...	...	30.33
*Kew Observatory	Balfour Stewart, Esq.	0.0	18	28.72
Wandsworth	G. Dines, Esq.	...	...	32.86
Battersea	Rev. S. Clark	0.0	13	28.26
KENT—Tunbridge	G. H. Fielding, Esq	0.0	...	31.43
Linton Park, Maidstone	J. Robson, Esq.	0.0	200?	33.66
Maidstone	J. H. Baverstock, Esq.	1.3	60	33.65
Greenwich Observatory	J. Glaisher, Esq.	...	...	32.0
SUSSEX—Aldwick, Bognor	W. L. Woods, Esq.	0.6	...	29.40
Worthing	W. G. Barker, Esq.	0.0	10	34.32
Chichester	C. L. Prince, Esq.	...	...	37.44
Hastings	" "	...	...	34.25
Slindon	Rev. M. A. Smelt	1.0?	200?	44.06
Glynd, Lewes	C. L. Prince, Esq.	...	...	40.30

* Gauge out of order 8 days in October.*

DIVISION II.—SOUTH EASTERN COUNTIES—(continued.)

STATIONS.	AUTHORITIES.	Height of Rain Gauge. Above the Ground.	Above Sea Level.	Depth of Rain.
		ft in.	feet.	inches.
SUSSEX—(continued.)				
Fairlight	J. Rock, Esq.	0.0	500	29.54
Chilgrove, Chichester	W. L. Woods, Esq.	0.6	250?	43.50
Uckfield	C. L. Prince, Esq.	...	200	42.46
Buxted Park	" " "	...	...	45.55
Maresfield, Forest Lodge	" " "	...	...	39.02
Maresfield Rectory	" " "	...	...	40.70
Fair Oak, near Rogate	W. L. Woods, Esq.	...	...	44.58
The Hyde Crawley	E. S. Bigg, Esq.	1.6	...	47.63
HAMPSHIRE—Ventnor, Isle of Wight	G. A. Martin, Esq.	3.0	150	36.18
Ryde, Isle of Wight	B. Barrow, Esq.	0.0	110	36.28
Osborne, Isle of Wight	Mr. J. R. Mann	1.0	170	37.24
Thorney Island, Emsworth	W. L. Woods, Esq.	0.6	10?	33.14
Lyndhurst	C. L. Prince, Esq.	...	...	32.86
Southampton, (O.S.O.)	Col. Sir H. James, R.E.	0.0	75	44.05
" (O.S.O.)	" " "	18.6	94	35.71
" Gas Works	Mr. J. Sharp	10.0	20	29.56
Petersfield	W. L. Woods, Esq.	...	...	53.07
"	Rev. M. A. Smelt	1.6	220	48.64
Itchen Abbas	Gardeners' Chronicle	...	...	39.30
Aldershot	J. Arnold, Esq.	3.0	325	33.42
BERKSHIRE—Sandhurst, (R.M.C.)	Sergeant Grose	5.0	300?	29.84
White Waltham, Maidenhead	J. Silver, Esq.	1.6	...	28.84
Long Wittenham, Abingdon	Rev. J. C. Clutterbuck	1.6	180?	30.64

DIVISION III.—SOUTH MIDLAND COUNTIES.

HERTFORDSHIRE—Berkhampstead	W. Squire, Esq.	1.6	370	36.24
Royston	H. Wortham, Esq.	0.6	266	29.56
BUCKINGHAMSHIRE: Hartwell House	Dr. Lee	1.0	250	31.45
Hartwell Rectory	Rev. C. Lowndes	4.0	290	28.21
OXFORDSHIRE—Rose Hill, Oxford	Rev. J. Slatter	7.9	263	25.39
Radcliffe Observatory	Rev. M. A. Smelt	...	...	30.95
Bicester	W. Johnson, Esq.	4.0	220	27.36
Banbury	T. Beesley, Esq.	7.0	340	31.92
NORTHAMPTONSHIRE—Althorp House	Northampton Mercury	3.0?	...	25.20
Wellingborough	Mr. M. Sharman	1.0	...	29.41
Marholm, Peterborough	Peterborough Advertiser	0.6?	...	33.09
BEDFORDSHIRE—Aspley, Woburn	Rev. G. W. Mahon	0.6?	460	31.23
Cardington	S. C. Whitbread, Esq.	...	...	25.08
Bedford	T. H. Barker, Esq	4·0	104	24.95
CAMBRIDGESHIRE—Cambridge Observatory*	Professor Challis	2.6	91	23.73

DIVISION IV.—EASTERN COUNTIES.

ESSEX—Epping	H. Doubleday, Esq.	8.0	370	37.03
Witham	H. Dixon, Esq.	1.6	24?	26.08
Frating, Colchester	Essex & West Suffolk Gaz.	...	...	29.70
Dunmow	The Times	...	...	28.93
SUFFOLK—Bury	Bury and Norwich Post	..	...	31.62
Thwaite	Mr. O. Whistlecraft	3.6	150	36.60
NORFOLK—Norwich	W. Brooke, Esq.	0.0	30	34.47
Holkham	S. Shellabear, Esq.	0.0	39	34.69

*Gauge out of order from January 1st to 24th.

DIVISION V.—SOUTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Height of Rain Gauge.		Depth of Rain.
		Above the Ground.	Above Sea Level.	
		ft. in.	feet.	inches.
DORSET—Portland	J. T. Leather, Esq.	2.0	52	30.77
Little Bridy	H. S. Eaton, Esq.	0.4	348	49.04
Bridport	A. Stephens, Esq.	0.11	85?	36.63
DEVON—Goodamoor	Woolmer's Exeter Gazette	...	600?	72.02
Torquay	E. Vivian, Esq.	6.0	120	36.36
High Wick, Newton Bushell	W. Vicary, Esq.	1.0	350?	48.02
Prince Town, Dartmoor	Dr. Roome	35.0	1700	63.88
Bovey Tracey	W. Vicary, Esq.	0.6	100?	49.82
Exeter St. Thomas	„ „ „	4.0	50	42.17
„ Devon & Exeter Inst.	„ „ „	12.0	140	36.08
„ High Street	W. H. Ellis, Esq.	50.0	178	36.26
Castle Hill, South Molton	Mr. A. Saul	3.6	100?	57.46
Barnstaple	T. Mackrell, Esq.	0.6	31	50.14
CORNWALL—Helston	M. P. Moyle, Esq.	5.0	...	42.96
Penzance	W. H. Richards, Esq.	1.0	94	49.25
Truro	C. Barham, Esq.	40.0	53	50.06
Bodmin	Lieut. Liddell, R. N.	3.0	300	56.33
St. Petroc Minor, Padstow	Royal Cornwall Gazette	...	...	47.40
SOMERSET—Taunton	W. Vicary, Esq.	1.6	20?	32.62
Bridgewater	A. Haviland, Esq.	6.6	45	29.53
Frome, (North Hill)	Bristol Mercury	...	...	38.90
Bath	C. S. Barter, Esq.	50.0	150	44.67
DIVISION VI.—WEST MIDLAND COUNTIES.				
GLOUCESTER—Bristol Institution	The Secretary	56.0	98	42.96
Clifton	W. C. Burder, Esq.	0.6	192	40.80
Cirencester	S. Marshall, Esq.	...	...	36.96
Gloucester (The Asylum)	Dr. Williams, Esq.	0.0	100	28.01
„ (The Spa)	A. Price, Esq.	3.2	65	27.99
„ (Twigworth)	Dr. Williams	...	...	28.48
HEREFORD—Rocklands, Wye	Hereford Times	...	...	40.77
SHROPSHIRE—Hengoed, Oswestry	Rev. A. R. Lloyd	4.8	...	45.51
WORCESTER—Worcester	S. Marshall, Esq.	...	...	39.07
Orleton, Tenbury	T. H. Davis, Esq.	...	...	36.89
WARWICKSHIRE—Stoneleigh Abbey	Mr. T. Bowick	1.0	...	31.24
Birmingham	T. Southall Esq., Decd.	...	455	35.16
DIVISION VII.—NORTH MIDLAND COUNTIES.				
LEICESTER—Leicester	J. Payne, Esq.	...	...	24.99
Belvoir Castle	W. Ingram, Esq.	...	237	29.23
LINCOLN—Grantham	J. W. Jeans, Esq.	...	179	29.67
South Kyne, Sleaford	Rev. H. S. Neucatre	0.0	9	31.73
Spring Gardens, Gainsborough	T. Dyson, Esq.	...	...	29.15
NOTTS, Welbeck	Doncaster Chronicle	...	...	30.54
East Retford	„ „ „	...	...	28.13
West	„ „ „	...	...	28.20
Retford	„ „ „	...	...	28.04
DERBY—Derby	J. Davis, Esq.	5.0	174	32.77
DIVISION VIII.—NORTH WESTERN COUNTIES.				
CHESHIRE—Macclesfield	W. Jeffrey, Esq.	2.9	500	39.88
LANCASHIRE: Liverpool Observatory	J. Hartnup, Esq.	30.0	50	24.53
Liverpool (Sandfield Park)	W. Lassell, Esq.	3.0	...	35.40
Manchester	G. V. Vernon, Esq.	3.0	106	36.14
Preston (House of Correction)	Preston Chronicle	0.0	...	37.86
„ „ „	„ „ „	53.6	...	33.28
Stonyhurst	Rev. A. Weld	0.0	381	50.6
Holker, Cartmell	S. Marshall, Esq.	4.0?	...	47.07

DIVISION IX.—YORKSHIRE.

STATIONS.	AUTHORITIES.	Height of Rain Gauge.		Depth of Rain.
		Above the Ground.	Above Sea Level.	
		ft. in.	feet.	inches.
YORKSHIRE—Sheffield	D. Doncaster, Junr., Esq.	0.4	330	37.19
Saddleworth	Huddersfield Chronicle	...	...	46.99
Standedge	" " "	...	...	56.75
Ackworth	Luke Howard, Esq.	0.1	135	33.06
Longwood, Huddersfield	Huddersfield Chronicle.	...	...	34.74
Wakefield	W. R. Milner, Esq.	4.0	110	33.48
Rastrick, Huddersfield	S. Marshall, Esq.	...	...	33.37
Hunter's Hill, Halifax	Halifax Courier	...	...	42.3
Warley Moor	" " "	...	..	51.2
Midgeley Moor	" " "	...	...	53.1
Ovenden Moor	" " "	...	...	51.6
Leeds	H. Denny, Esq.	45.0?	137	28.32
Middleton, Beverley	York Gazette	1.6	...	36.78
Ben Rhydding	R. C. Taylor, Esq.	3.0	510	34.3
York	J. Ford, Esq.	0.6	50	30.37
Huggate, Pocklington	Rev. T. Rankin.	0.6	650	32.13
Arncliffe, Skipton	Rev. W. Boyd	3.0	750	54.93
Malton	The Times	...	...	34.46
Scarborough	R. Champley, Esq.	9.0	100	24.00
Redmires, Leyburn	D. Doncaster, Junr., Esq.	...	...	44.28

DIVISION X.—NORTHERN COUNTIES.

DURHAM—Durham Observatory	A. Marth, Esq.	1.0	338	30.33
Washington	J. Watson, Esq.	20.0	120	27.61
Sunderland	The Times	...	...	29.39
Shotley Hall, Gateshead	Mr. G. Routledge	0.8	110	35.35
NORTHUMBERLAND—Bywell	Mr. J. Dawson	1.0?	87	38.13
Allenheads (8. in Gauge)	T. J. Bewick, Esq.	0.5	1360	59.15
" (12 in. gauge)	" " "	6.9	1360	59.91
North Shields	R. Spence Esq.	1.0	124	32.19
High House, Alnwick	Mr. J. Scott	0.6	400	36.6
CUMBERLAND—Broughton	Registrar General's Returns	...	...	49.7
Keswick	J. F. Crosthwaite, Esq.	6.0	245	54.17
Mire House, Bassenthwaite	Rev. F. Redford	4.0	210?	50.41
Silloth	" " "	6.0	16	37.81
Carlisle(OrdnanceSurveyOffice)	Captn. E. James, R. E.	50.0	123	31.62
WESTMORELAND—Kirkby Lonsdale	S. Marshall, Esq.	...	...	41.6
Kendal	" " "	4.0	149	57.00
The How, Windermere	Admiral Wilson	1.8	436	102.58
Wray Castle	Dr. Dawson	4.6	220	69.45
Lesketh House, Ambleside	Dr. J. Davy.	2.0	130	79.97
Lowther Castle, Penrith	S. Marshall, Esq.	4.0?	...	45.33
Brougham Hall, Penrith	" " "	4.0?	...	36.68

DIVISION XI.—WALES.

GLAMORGAN—Ystalyfera, Swansea	The Cambrian	...	...	73.21
CARDIGAN—Lampeter	Registrar General's Returns	...	...	55.3
FLINT—Hawarden	Dr. Moffat	0.0	260	27.80
GUERNSEY	Registrar General's Returns	...	...	48.0
ISLE OF MAN—Ballasalla	J. Burman, Esq.	0.0	100	37.17

G. J. SYMONS.

Camden Road Villas, N.W.

director who does not understand the subject, and who in efforts to "put things to rights," breaks up a continuity which in the whole of the rest of his life he can never restore.

Out of the 168 returns published for 1860, there are no fewer than 53—very nearly one third—which have reappeared in every subsequent year; and in the great majority of these cases the records have been throughout from one gauge in one place. This again is no slight contribution of data for the determination of the amount and nature of secular change.

It may perhaps be permissible to offer brief commentaries upon the few paragraphs at the head of the 1860 table.

> "The compiler having commenced an extensive investigation into the Rainfall of the British Isles, has experienced much difficulty in collecting the earlier observations from the numerous works in which they are scattered."

Yes—that was true then, it is true still, for that branch of work is not yet ended. I worked very hard at it from 1860 to 1864, until indeed I was laid aside through overwork, and subsequently when a little time could be found I returned to the task, for it has always been the dream of my life to collect all the observations and work them up, and, if money could be found, to print them; so that in time to come, one single volume should give the history of the rainfall of this country from 1677, when rainfall observations were first made, down to 1860 when the present series of publications began. But the distribution of money is one of the enigmas of this life; one sees tens, nay hundreds of thousands of pounds as utterly wasted as if thrown overboard in Mid Atlantic — and on the other hand one sees work like this postponed, while life and strength fail, postponed because the £2,000 or so neccessary to complete it is not forthcoming.

> "He offers this summary, hoping that year by year the number of stations will increase, and these papers become more valuable in themselves and more worthy of the acceptance of the contributors."

This hope has indeed been fulfilled. The story of the growth of the organization from the 168 contributors of 1860, to the 2,600 or thereabouts of 1884, is not without interest; it has by no means been arm-chair work, and much as Alpine Club men may smile at the idea, I can assure them that the erection and constant care of some of the gauges in these Islands affords excellent practice both for

muscles and for nerves. However, this is hardly the place to write about personal matters. Suffice it therefore to say, that the increase of the *number* of stations has for many years ceased to be my object, the far more important one of their *wide and equable geographical distribution* having taken its place. In this I received many years ago considerable help from the *British Association* as well as from the newspaper press, the result being that there is scarcely a spot in the British Isles from which were I suddenly dropped from a balloon I should not be within walking distance of one of my correspondents. There are a few places whence the walk would be rather long, but thanks to the £100 left by Miss Nunes they are but few, and I hope soon to fill up the interstices which remain, chiefly in West Durham, in Central Inverness, and in Sutherland.

> "The height of the gauges above the ground and above sea-level (when known) will be stated, so that the differences due to these causes may be allowed for, if desired."
>
> "In order that the correction for altitude may be better known *similar* gauges should be placed at different heights, wherever the position is advantageous, such observations being at present very scarce."

Just as "*English Rainfall*" was the first publication wholly devoted to the rainfall of a single year, so was it the first in which the particulars as to the height of the gauge above ground and above sea-level, were given. In so doing it set an example which has been followed in nearly every country on the globe, and which would be followed in all were criticism of the "powers that be" as vigorous in some countries as it is in others. Unfortunately there are persons who estimate the efficiency of their officers by the *quantity* of work which they turn out. In this country this is not generally the case, and I rejoice to believe that *quality* is preferred to *quantity*.

As regards the experiments suggested in the paragraph quoted, they have been completed in the most thorough manner, thanks to the pecuniary liberality and personal care of Colonel Ward and of Mr. Chrimes, followed up subsequently by that of the Rev. C. H. Griffith and the Rev. F. W. Stow.

> "The order of the stations is nearly that adopted by the Registrar General, but the ordinary county boundaries are maintained, and the stations in each county are arranged in the order of their latitude."

This is the only one of the decisions of 1860 of the correctness of

which I have ever entertained a moment's doubt. There are many arguments in favour of grouping the stations according to the river basins in which they are situated, and if Parliament, instead of engaging in endless talk on abstract questions, had taken up the subject of River Pollution and, as it then must have done the tangled skein of the territorial divisions of this country (I believe that there must be 100 different sorts) and adopted the only rational one of river basins, I should have had to change also. But I am sure that however preferable from a theoretical point of view such a plan might be, it would be extremely perplexing to most persons—not merely because there are so many rivers identical in name (*e.g.* there are eleven Avons, nine Blackwaters and so on) but also because so few persons know the names or the positions of the rivers, *e.g.*, how many persons who read these lines know where the River Cree is? yet it is a county boundary and 20 miles long. On the other hand everybody knows approximately where the counties are, and happily no two of them have the same name.

Lastly, turning to the tables we find the returns almost all reduced to two places of decimals, whereas previously one, two, or three had been indiscriminately used—and in some ridiculous cases as many as five decimals for one month and only one for other months of the same year.* There is now no publication that I can recollect in which rainfall is given in English inches otherwise than to two places of decimals.

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* *Quarterly Journal of Meteorology*, Vol. I. (1843) part V. p. 256.

SELF-RECORDING RAIN GAUGES.

THE extreme importance of obtaining an accurate and yet inexpensive instrument of the above class induces us to return to the subject to which in previous years we have devoted considerable space.

In *British Rainfall*, 1878, seventeen pages of letter-press and seven pages of engravings were occupied by descriptions and engravings of different inventions for rendering rain gauges self-recording, which had been suggested between 1817 and 1879. In the next annual volume, *British Rainfall*, 1879, three other patterns were described and engraved, and several pages were devoted to an examination of the advantages and disadvantages of each of the thirty-one patterns.

In *British Rainfall*, 1883, there was a brief note referring to three new patterns, but full details were not obtainable when that volume went to press, and therefore it is only now that we are able to describe them fully.

THE SCALE AS TO AMOUNT AND AS TO TIME.

Before resuming our notes upon the details of construction, it seems desirable to consider one part of the subject of automatically recording rain gauges upon which it is the duty of the meteorologist, rather than of the optician, to decide.

We refer to the question of scale. This varies very greatly in different instruments; as regards amount, from $1\frac{1}{2}$ inches of paper for 1 inch of rain in (25) Hottinger's to 9 inches for 1 inch in (28) Baldwin Latham's; as regards time, from 0·07 inch an hour in (35) Richard's to nearly 1 inch an hour in (3) Osler's.

A very slight examination will show that, with nearly all the best patterns of gauge, the scale can be made whatever is desired. This branch of the question depends partly upon what a self-recording gauge is expected to do. If it is to record everything from the falling of a few drops, just enough to spoil a new hat, to the details

of the greatest rush of rain during a thunderstorm, it can be made to do so, but the gauge must be costly, must receive attention daily, and the observer must prepare to stow away a great heap of nearly blank paper.

If it is sufficient to record all rains which can have the slightest influence on vegetation, on drainage, or on water supply—say amounts of ·03 in. and upwards, together with the details of all but the absolute extreme of torrential rains—say 3 in. per hour and upwards —that can be done by attending to a gauge once a week, and with extreme compactness. Of course this is just one of the questions upon which different opinions will prevail. Those who aim at absolute accuracy—0·001 in., &c.—will maintain that whatever is worth doing at all is worth doing as well as possible; while others will maintain that rather than have the care of a gauge needing daily attention, and be buried under a heap of diagrams almost too voluminous to work up, they prefer a compact diagram sufficient for all practicial purposes, and involving only five minutes' attention once a week.

There is no reason why each should not be permitted to hold his own view, but let neither find fault with the instrument adopted by the other; for, as we have already said, most patterns can be adapted to either system.

We avail ourselves of this opportunity to utilize some references kindly supplied to us by Dr. Hellmann, of Berlin, and to add a few words respecting some of the gauges already described. The lower numbers are those used in the volumes above quoted; the higher numbers are in continuation of the previous series of descriptions.

(12) Osnaghi.

A description of this gauge is given in Carl's *Repertorium*, Band vi., 1870, but it is nearly (in the greater part absolutely) verbatim with the description of Osnaghi's apparatus given in the *Zeitschrift der österreichischen Gesell*, Band v., p. 271, and quoted on p. 41 of *British Rainfall*, 1878.

(13) Casella, L.

A description of this gauge is given in *Observaçoes Meteorologicas e Magneticas*. . . . . Coimbra, 1876. Sig. de Sonsa concludes by

describing it as "An extremely sensitive and exact instrument, always agreeing with the standard gauge."

(28) LATHAM, BALDWIN, C.E.

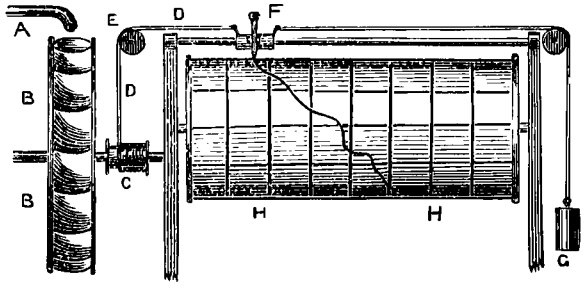
Photographs of this gauge are shown in the Inventions Exhibition.

(29) CAPELLO, J. DE B.

This gauge is fully described in the *Annaes de Obs. Dom Luiz* for 1864.

(32) WILD-HASLER,* *St. Petersburg.*

This rain gauge is subordinate to the anemometer to which it is



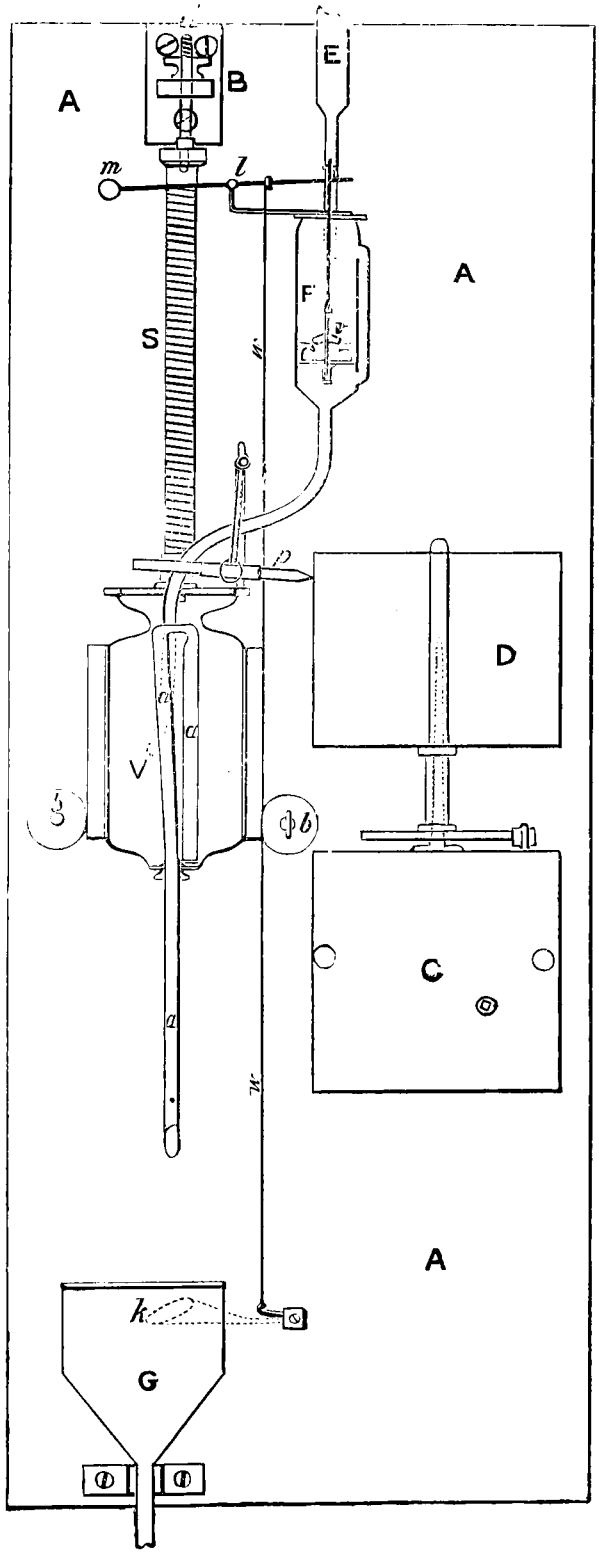
A Pipe bringing rain.
B Overshot wheel.
C Drum winding up cord.
D Card drawing carrier.
E Pulley.
F Carrier with pencil.
G Counterpoise.
H Paper-covered cylinder.

attached, as is indicated by its name, Anemo-ombrograph. The funnel is about 2 ft. in diameter; the water from it is led by a pipe to an overshot water-wheel, which has 16 compartments. This wheel winds up a cord which pulls a slide horizontally along a bar. To the slide is attached the pencil, which records the fall of rain on the same sheet of paper upon which the details of wind motion are inscribed.

(33) R. L. J. ELLERY, F.R.S.,† *Melbourne.*

This somewhat resembles (31) Draper's, and like it is intended to be placed in a building, and at a lower level than the funnel. The gauge is supported by a large slab of wood AA, which is bolted against a wall. Rain enters by the pipe E, passes through the vase F and the valve *v* into the reservoir V. This reservoir is supported by two springs S, which are carried by the bracket B, and can be

* Carl's *Repertorium*, Band xi., München, 1875.
† Transactions and Proceedings of the Royal Society of Victoria.



IN-DOOR PORTION OF MR. ELLERY'S SELF-RECORDING RAIN GAUGE.

slightly raised or lowered by the screw *d*. Just above the vase is a little support from which the pen *p* hangs, and presses by its own weight against the paper-covered cylinder D. As rain falls, the weight of V increases, and the springs S are stretched; the pen *p* therefore rests against lower parts of the cylinder, until at last V fills up to its neck, the syphon *a a* comes into operation, and the reservoir V is emptied, when of course it becomes light, remounts to its original position, and if the rain continues, commences to descend again. Gauges which empty gradually are sometimes found to fail in torrential rains, as that which falls while they are emptying themselves escapes being recorded. Mr. Ellery has overcome this difficulty by making the reservoir V empty itself over a little bucket K, which thereby fills, draws down the wire W, and so shuts the valve *v* in the vase F. When the reservoir V is empty, *k* becomes so too, and the counterpoise *m* lifts the valve *v*, and allows any little stored water to pass into V. In order that the reservoir V may not get out of place, it is fitted with guide wings, which run in the pulleys *b b*. C is, of course, the clock, which turns the paper-covered cylinder D.

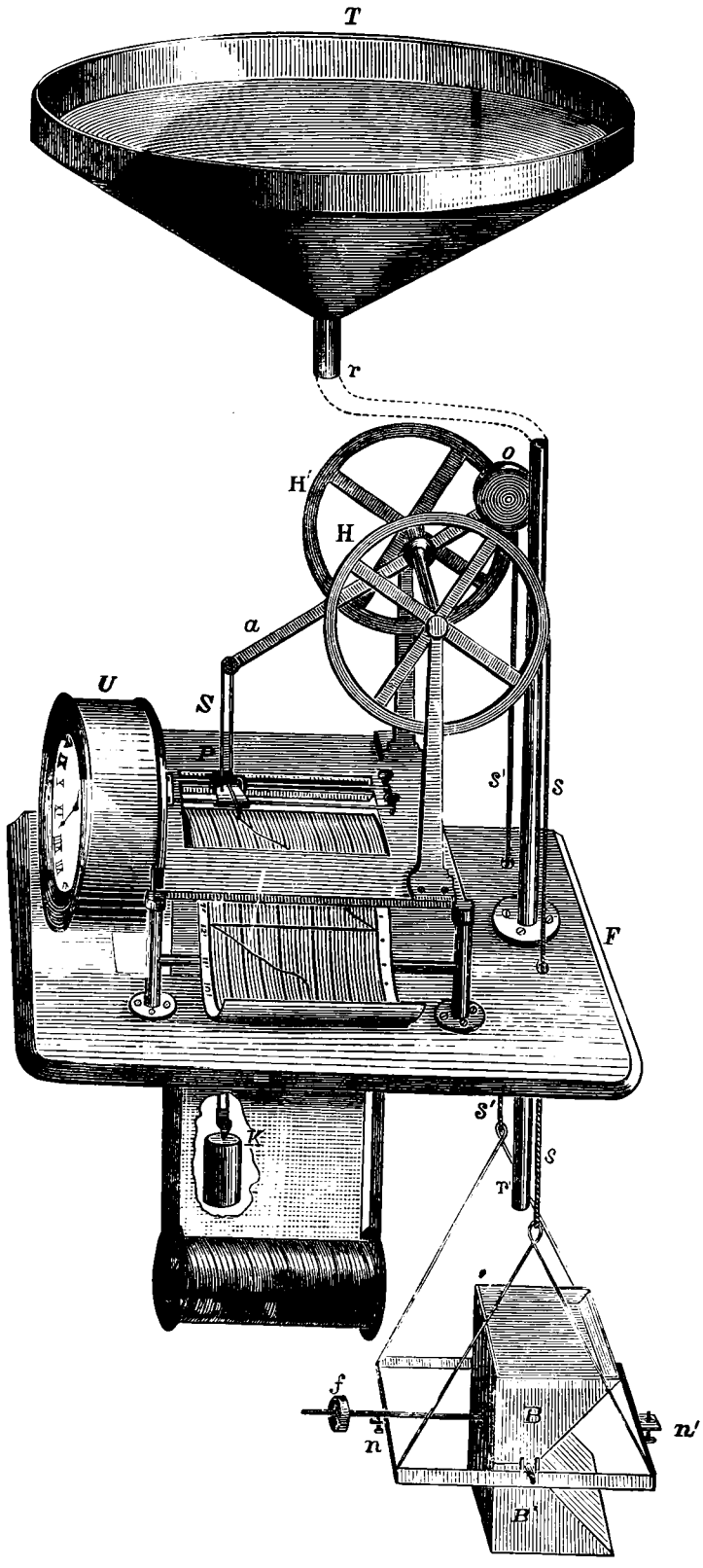
We have no information respecting cost, but we imagine that it would be rather large, as some parts of the apparatus seem to require somewhat expensive fittings, and it does not appear to be a pattern which could conveniently be erected with the funnel less than 6 or 7 ft. above the ground.

(34) Captain Rung,* *Copenhagen.*

This instrument, as will be seen from the engraving, has very little in common with any other.

The mode of action is very simple. Rain falls into the funnel T, passes down the pipe *r r* and drops into the bucket B. As B becomes heavier, the cords *s s'* turn the wheels H H', the arm *a*, and the principal counterpoise K rises, and the recording pen P is pushed towards the clock U. When 0·20 in. of rain has fallen, the upper bucket B over balances and turns right over so that B' takes its place, the counterpoise *f* goes over and rests upon *n* instead of upon *n'*, the bucket having become light the weight K falls and the pen P returns to zero. An endless roll of paper is put upon the roller R, whence it is unwound by the clock U and carried beneath the pen P. By an arrangement not shown in the engraving, hour lines are

* *Meteorolojische Zeitschrift*, 1884 p. 461.



(34) RUNG'S SELF-RECORDING RAIN GAUGE. [*Face p.* 22.

marked upon the paper by the clock. The scale is a very open one, the curve giving 20 inches of paper for one inch of rain, and $\frac{3}{4}$ of an inch of paper for each hour.

We have not seen the instrument, but from the engraving presume that the idea is to have the recording apparatus in a room, and the funnel above its roof—this we need hardly remind our readers never can give accurate results. Probably the engraver alone is responsible for the shape of the funnel, but surely the inventor or the makers of the gauge might have prevented the engraving of a funnel so shallow that it would scarcely collect a millimetre of snow, or a dozen hailstones. The original is even flatter than our reproduction. These objections could, however, all be removed, and the chief remaining ones seem to us to be the cost (£17), and the suddenness with which the gauge must empty itself and fly back to zero. This gauge is made by Messrs. Kemp and Lauritzen, of Copenhagen.

[Since the above description was written, and the engraving made, Captain Rung has informed us that the gauge itself is being shown in the Danish Court of the Inventions Exhibition. The gauge is well made, and the price (considering the workmanship) low; but it is evidently intended solely for recording the fall of rain on the roof of a building—a place which countless experiments have proved to be unfitted for the accurate measurement of the fall of rain.]

(35) Richard Freres,* *Paris.*

This is an extremely well made application of the Crosley† tipping bucket to the production of a continuous record. The mere tipping bucket *per se* can only give a record composed of steps—one step for each tip of the bucket, and is therefore so far imperfect. Casella was the first to obviate this by making the gradual increase of weight cause a continuous motion of the recording pencil—but Casella's gauge has only one bucket, not the double Crosley one, and therefore there is just a little (nearly inappreciable) loss of the rain which falls while the bucket is emptying itself and returning to its proper position. With the Crosley double bucket not a drop can be lost, for even if one falls while the partition is passing, that drop would be cut in two and part of it would pass to each side.

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* *Bulletin de la Société d'Encouragement* 1882, and Supplement 1884.

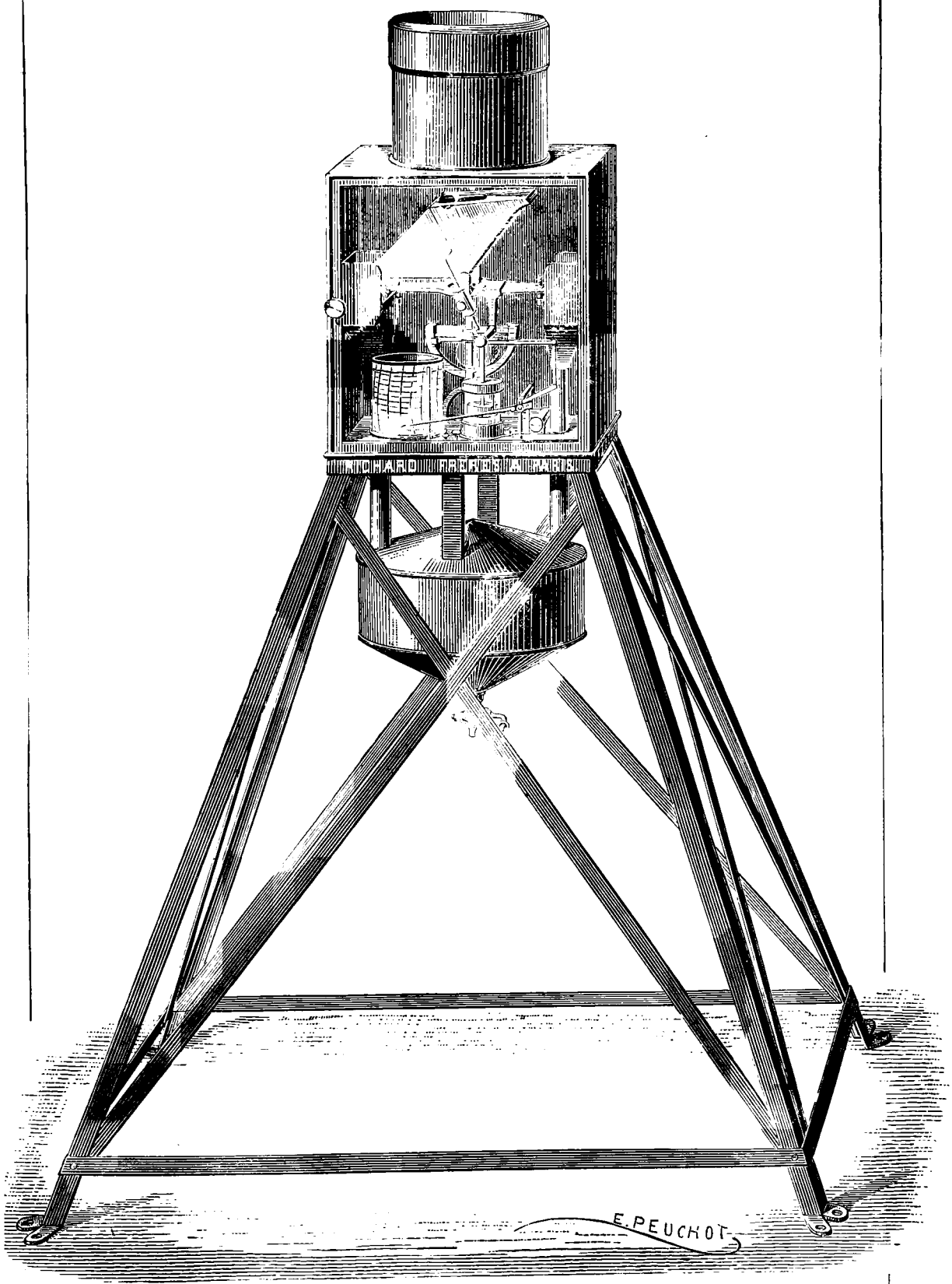
† Or Horner; we are not yet sure who was first in this matter.

In the old Crosley gauge the platform on which the tipping bucket was supported was a fixture; in Messrs. Richard's gauge this platform rises and falls, being supported by a counterpoise. As rain accumulates in the upper bucket, the weight increases, the platform descends, and in so doing the arm raises the pen which produces the record on the paper-covered cylinder. When 0·40 in. of rain has fallen the bucket tips, its weight is discharged, the platform rises, the pen returns to the zero, the other half of the bucket begins to fill and all goes on as before. These are the broad outlines of the system. We have now to pass to details. The paper-covered cylinder turns once in a week; it would be just as easy to make it turn once in a day, but at present these gauges are made to use only one sheet of paper per week. The papers are about $11\frac{1}{2}$ inches long by 3 inches wide—therefore the scale is rather more than $1\frac{1}{2}$ inches per diem, and about 8 inches for 1 inch of rain.

It was found that the pen went back to zero so suddenly that sometimes the ink was spurted out, but this evil has been most ingeniously overcome. Attached to the descending platform is a piston which works quite freely in a glass cylinder nearly filled with glycerine—the piston does not nearly fill the cylinder, and merely passes through the glycerine as it descends. When the bucket is empty and the platform is therefore free to rise, the piston is at the bottom of the glycerine and has to be drawn up through it; the time occupied in this can be regulated at the pleasure of the observer, but usually one or two seconds is sufficient to prevent all jerk and spilling of the ink, and to allow the pen to trace a clear line. This does not damage the record of even one drop of rain as what few $\frac{1}{1000}$ths may fall during the rise are stored in the bucket and form part of the next record. Glycerine is of course used because of its extremely slight evaporation and its low freezing point.

Lastly, with the cylinder turning only once a week, the record may be confused in an extremely heavy torrential rain, but in that and all other cases a check upon the indications of the gauge is afforded by the buckets discharging into the "totalizer" below—whence the rain can be drawn by the tap for measurement with an ordinary glass.

We have seen a gauge of this pattern at work under Mr. Renou's care at the observatory at St. Maur, near Paris, and its records were extremely satisfactory.



(35) RICHARD'S SELF-RECORDING RAIN GAUGE. [*Face p.* 24.

WHAT FORM OF DIAGRAM BEST REPRESENTS MONTHLY RAINFALL?

In the few following pages I give the stages of a recent consideration of the above subject because the details themselves may be of some interest and may suggest to others some better plan than has occurred to me.

As a foundation, it is desirable to work with actual numbers, and I therefore take those for my own station, Camden Square, and give them in the following table. They are the basis of diagrams Fig. 1 to Fig. 16 :—

	Amounts.						Per Centages.					
	Monthly.			Cumulative.			Monthly.			Cumulative.		
	Average.	1884.	Diff.	Average.	1884.	Diff.	Average.	1884.	Diff.	Average.	1884.	Diff.
1	2	3	4	5	6	7	8	9	10	11	12	13
	in.	in.	in.	in.	in.	in.						
Jan ...	2·35	2·30	— ·05	2·35	2·30	— ·05	9	9	0	9	9	0
Feb...	1·64	1·40	— ·24	3·99	3·70	— ·29	6	5	— 1	15	14	— 1
March	1·61	1·41	— ·20	5·60	5·11	— ·49	6	5	— 1	21	19	— 2
April.	2·02	1·02	—1·00	7·62	6·13	—1·49	7	4	— 4	28	23	— 5
May..	1·92	·78	—1·14	9·54	6·91	—2·63	7	3	— 4	35	25	—10
June..	2·67	2·84	+ ·17	12·21	9·75	—2·46	10	10	+ 1	45	36	— 9
July..	2·47	2·46	— ·01	14·68	12·21	—2·47	9	9	0	54	45	— 9
Aug..	2·74	·89	—1·85	17·42	13·10	—4·32	10	3	— 7	64	48	—16
Sept..	2·51	1·77	— ·74	19·93	14·87	—5·06	9	7	— 3	73	55	—19
Oct ...	2·70	·99	—1·71	22·63	15·86	—6·77	10	4	— 6	83	58	—25
Nov ..	2·44	1·92	— ·52	25·07	17·78	—7·29	9	7	— 2	92	65	—27
Dec...	2·17	2·57	+ ·40	27·24	20·35	—6·89	8	9	+ 2	100	75	—25
Total.	27·24	20·35	—6·89	27·24	20·35	—6·89	100	75	—25	100	75	—25

Column 2 gives the average (1870–79) fall in each month.
,, 3 ,, ,, actual fall in 1884 in each.
,, 4 ,, ,, difference between the actual and average in each.
,, 5 ,, ,, average up to the end of each.
,, 6 ,, ,, actual fall to the end of each.
,, 7 ,, ,, total deficiency to the end of each.
,, 8 ,, ,, average per centage of the yearly total falling in each.
,, 9 ,, ,, actual per centage in 1884 of the yearly total falling in each
,, 10 ,, ,, difference per cent. in 1884 of each from the average.
,, 11, 12 and 13 give the same values as 8, 9 and 10, but arranged cumulatively, as in columns 5, 6 and 7.

I think that the foregoing are all the values which can be needed.

The simplest way of representing the values in Col. 3, is that shown in Fig. 1, where the scale is equal for 1 inch of rain, and for 1 month of time.

If any considerable number of these were placed upon a map their length would be very confusing—it may therefore be better to take 1 inch of rain equal to 3 months, as in Fig. 2.

A much more compact diagram is made by curling Fig. 2 into a circle, taking arcs of 30° ($\frac{360°}{12}$) for each month, this gives Fig. 3, but it is uncomfortably crowded in the centre. There are three ways of avoiding this; *e.g.*, in Fig. 4 the columns for each month are wedge-shaped, in Fig. 5 they are thin, and in Fig. 6 they start from a circular disc instead of from the actual centre.

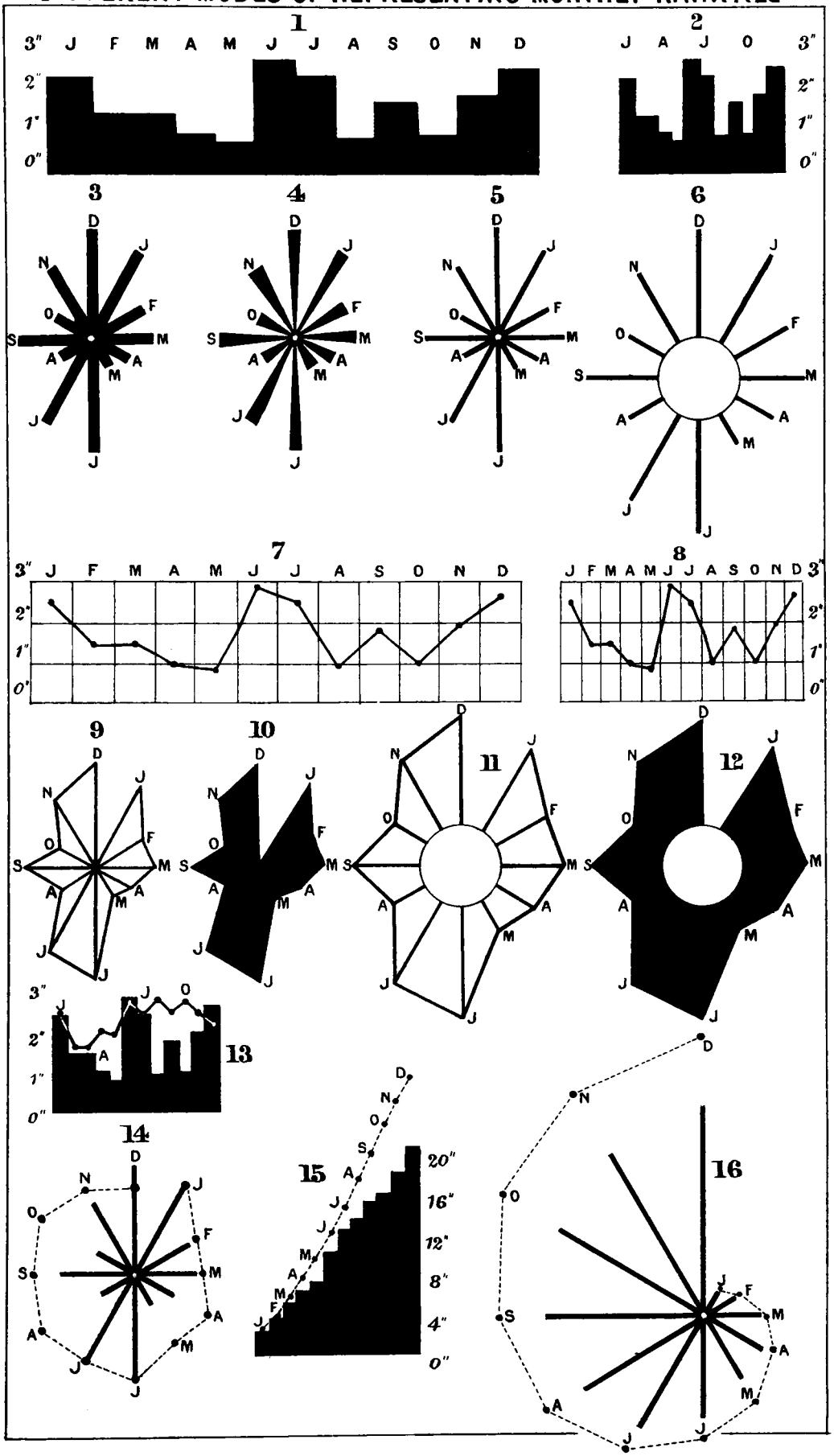
There is, however, another mode of drawing diagrams which is shown in Figs. 7 and 8; the latter (when curled up like Fig. 3) becomes Fig. 9, or if filled in solid becomes Fig. 10. The addition of the central disc, as in Fig. 6, changes Fig. 9 into Fig. 11, and Fig. 10 into 12. Moreover Fig. 9 and 11 are merely Fig. 5 and 6 with the extremities of the radii joined.

My own impression is that if it is required to represent total monthly fall *alone* Fig. 2 is the best, because although it occupies less space than any other, it is also more easily understood and read off—*e.g.*, it takes no thought to see from Fig. 2, that the wettest months of 1884 at Camden Square were the two mid-summer months, and the first and the last month of the year; this is not seen so readily from any other figure, but Fig. 8 is not far behind.

It is, however, desirable to indicate besides the actual monthly fall as above, its relation to the average monthly fall, *i.e.*, to give in one diagram the information contained in columns 2, 3 and 4. I think that the best forms for doing this are Figs. 13 and 14. In Fig. 13, the monthly falls in 1884, are represented (as in Fig. 2) by vertical columns, and the average values by a flexuous line—either black or white according to the background it has to cross.

Fig. 14 is composed of a star, the arms of which represent the fall in each month of 1884 (as in Fig. 5), and a dotted chain uniting the distances representative of the average fall in each month. Therefore of course when the radii extend beyond the chain it shows that the month was a wet one, and when they do not reach it they indicate dry months; the dryness being proportional to the distance

DIFFERENT MODES OF REPRESENTING MONTHLY RAINFALL



between the extremity of each radius and the chain opposite thereto.

But all these methods fail to impress upon the mind one fact which is of great importance, viz., the influence of the fall of preceding months upon the results of subsequent ones. For instance a hasty or careless glance at Fig. 14 might easily cause one to imagine that, inasmuch as both ends of the chain are close to the ends of the radii, the rainfall of the year had been near the average. It is in order to avoid this that I have added to the table, columns 5, 6 and 7, in which the actual fall in each month is added to that of all its precursors, and the mean fall in each month is similarly cumulative. Of course this gives larger amounts with which to deal, therefore Fig. 15 is drawn upon a smaller scale than the previous diagrams. In it the first column shows the total fall in January 1884, the height of the second column above the first shows the fall in February, and the total height of the second column shows the total fall in the first two months, and so on until finally the rise from the last column but one, to the last column, shows the fall in December ; and the total height of the last column shows the total fall in the year. The average fall up to the end of each month is similarly shown by the chain, and of course the height of the end of the chain, above the top of the December column, shows the total deficiency of the actual fall, below the average.

Fig. 16 is another way of representing the same facts, the radii represent the months, and increase in length by the addition of the fall in each successive month, and the dotted line represents the average ; the gradual increase in the distance between the ends of the radii and the chain, shows very clearly the gradual building up of the total deficiency.

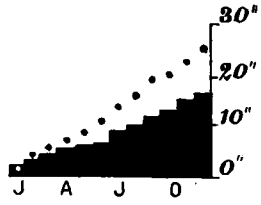
Lastly, another difficulty has to be considered. If the monthly rainfall over a large extent of country has to be represented on a map, it is very difficult to select a scale which will be suitable. The rainfall at one station in the British Isles is eight times what it is at another, but even if we take six times, which is about the usual ratio of Boston to Seathwaite, we shall find it extremely awkward to compare the curves. For instance, Figs. 17 and 18 give respectively the values for Boston and for Seathwaite for 1884 upon the same system as Fig. 15 gives for Camden Square, (but on a smaller scale, or Seathwaite would have taken nearly a page to itself.)

No smaller scale than that of Fig. 17 would show the details of

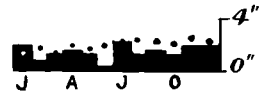
the Boston fall, but on the other hand if the base line of Seathwaite on a map of the British Isles of the size of this page was in its true position the top of the figure would reach to Sutherlandshire, and no indication of the seasonal distribution in the West of Scotland could be given. This can be readily overcome by substituting for the actual amounts, the percentages which each month bears (both in the current year and on the average) to the mean annual fall at that place. The amounts represented by Figs. 17 and 18, if turned into percentages become (on the same plan as columns 11 and 12 of the table on p 25) those of Figs 19 and 20. The steps of these diagrams are, however, too small to show clearly which were the wet and which the dry months. In order not to shirk the difficulty which arises from the variation in the total fall in different districts, I adhere to the two stations of Boston and Seathwaite, and try to find what is the best mode of representing their results. Figs. 21 and 22 give the actual and average monthly falls on the same system as Fig. 13, but Fig. 21 cannot be considered satisfactory. In Figs. 23 and 24, I have given in vertical columns the percentage of the yearly mean which fell in each month of 1884, and have represented by a dotted chain the percentage which usually falls in each month. I am inclined to regard this as the system best adapted for general use, and have therefore this year adopted it as supplementary to the usual maps of monthly excess and deficiency. This, however, is fully explained on p. [149].

DIFFERENT MODES OF REPRESENTING MONTHLY RAINFALL

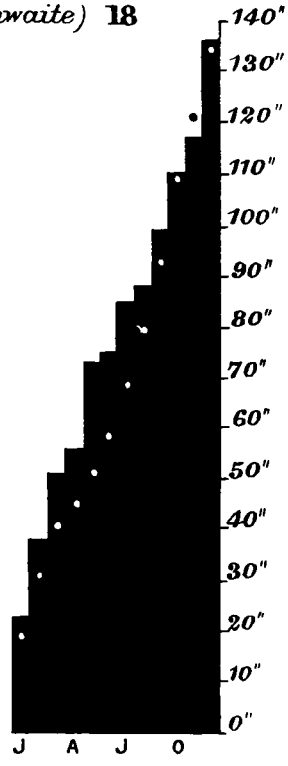
(Boston) **17**



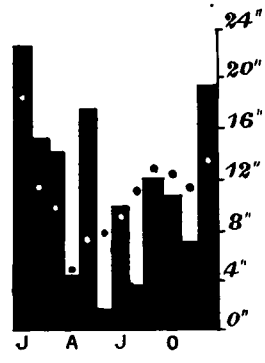
(Boston) **21**



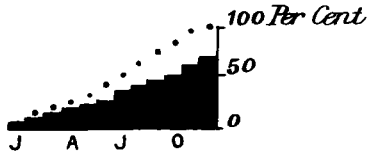
(Seathwaite) **18**



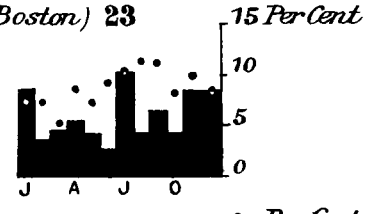
(Seathwaite) **22**



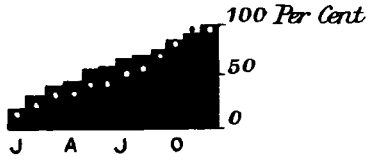
(Boston) **19**



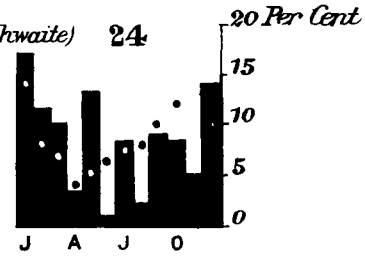
(Boston) **23**



(Seathwaite) **20**



(Seathwaite) **24**



ROTHERHAM EXPERIMENTAL RAIN GAUGES.

LAST year we gave a map which showed that the old "elevation series" of rain gauges had been reduced to the uniform height of 5 ft. above the ground, and arranged along the reservoir bank at distances of1 10 ft. apart, in order to ascertain whether there would be found to be any regular rule as to the effect of the bank upon the amount collected,

Last year we had the record of only one year, and therefore we left the figures without comment. This year we have a second set of values to compare with the first, and the results seem fairly accordant. As the total rainfall in 1883 and in 1884, was very dissimilar (23 inches in the former against 14 inches in the latter) we purpose to express the amounts as percentages of the gauges at Station No. 4 which is in the middle of the bank. No. 2 is at the south west end of the bank, and the numbers rise as we go along the bank towards north east :—

		No. 2.	No. 3.	No. 4.	No. 5.	No. 6.
Daily Gauges	1883	101	97	100	97	103
	1884	103	101	100	99	103
	Mean	102	99	100	98	103
Monthly	1883	110	101	100	101	107
	1884	115	104	100	102	108
	Mean	112·5	102·5	100	101·5	107·5
Mean of all		107·2	100·7	100·0	99·8	105·2

This seems to show that along all the middle of the bank the fall is nearly equal, but that it is greater towards each extremity.

This result is much what one would have expected (1) because of course the bank is not so high at the ends as in the middle, and (2) the wind is probably much stronger in the middle than near the sides of the old valley. As, however, the individual values are not very accordant we think that the gauges should be left as they are, at least until January 1st, 1886.

RAIN GAUGE EXPERIMENTS, ULLEY RESERVOIR, ROTHERHAM, 1884.

Lat. 50° 22′ 59″ N. Lon. 1° 19′ 9″ W. Altitude 184 ft.

Months.	Five Mouthed Gauges. 5 ft. above ground.					Inclined Rotating Gauges. 5 ft. above ground.			
	Facing East.	Facing North.	Facing West.	Facing South.	Horizon Centre.	22½°	45°	67½°	90°
January	·804	1·200	3·643	2·145	2·969	4·298	6·071	6·371	6·407
February.....	·715	1·250	·467	·741	1·339	2·021	2·615	2·703	2·491
March	1·652	·550	·420	1·638	1·242	2·080	2·889	3·071	3 015
April	·565	1·266	·211	·372	1·523	1·953	2·201	1·990	1·706
May.....	·017	·319	·988	·229	·686	1·006	1·296	1·382	1·285
June.....	·013	·351	·143	·070	·609	·707	·741	·559	·450
July.....	1·863	·902	·390	·845	2·186	2·513	2·586	2·063	1·578
August	·430	·086	·356	·188	1·264	1·405	1·063	1·130	·811
September ...	·436	·069	·193	·517	·916	1·317	1·343	1·188	·968
October	·224	·662	·929	·192	·616	1·013	1·291	1·541	1·552
November ...	1·468	·441	·442	·363	·455	·843	1·048	1·294	1·317
December ...	3·576	·640	1·312	1·062	1·202	1·978	2·731	3·361	3·336
Year	11·763	7·736	9·494	8·362	15·007	21·134	25·875	26·653	24·916

Months.	Position No. 1. 1 ft. above ground.			Position No. 2. 5 ft. above ground.			Position No. 3. 5 ft. above ground.		
	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly	Diff.
January	3·017	3·050	+·033	2·630	2·785	+·155	2·582	2·615	+·033
February.....	1·403	1·439	+·036	1·284	1·438	+·154	1·264	1·320	+·056
March	1·250	1·330	+·080	1·087	1·415	+·328	1·024	·970	—·054
April	1·636	1·861	+·225	1·452	1·815	+·363	1·516	1·516	...
May	·714	·769	+·055	·620	·711	+·091	·581	·610	+·029
June	·706	·770	+·064	·636	·659	+·023	·580	·610	+·030
July	2·374	2·451	+·077	2·164	2·122	—·042	2·062	2·083	+·021
August	1·312	1·279	—·033	1·214	1·227	+·013	1·154	1·192	+·038
September ...	1·156	1·187	+·031	1·019	1·102	+·083	·984	1·000	+·016
October	·640	·683	+·043	·527	·570	+·043	·465	·566	+·101
November ...	606	·658	+·052	·448	·488	+·040	·427	·455	+·028
December ...	1·360	1·441	+·081	·910	1·176	+·266	1·086	1·127	+·041
Year	16·174	16·918	+·744	13·991	15·508	+1·517	13·725	14·064	+·339

Months.	Position No. 4. 5 ft. above ground.			Position No. 5. 5 ft. above ground.			Position No. 6. 5 ft. above ground.		
	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.	Read Daily.	Read Mnthly.	Diff.
January	2·545	2·568	+·023	2·413	2·518	+·105	2·483	2·513	+·030
February.....	1·301	1·281	—·020	1·259	1·230	—·029	1·407	1·329	—·078
March	1·073	1·069	—·004	·975	1·000	+·025	1·073	1·092	+·019
April	1·504	1·450	—·054	1·560	1·550	—·010	1·496	1·600	+·104
May.....	·558	·520	—·038	·529	·573	+·044	·571	·566	—·005
June.....	·590	·565	—·025	·600	·627	+·027	·613	·684	+·071
July.....	1·927	1·941	+·014	2·066	2·133	+·067	2·140	2·160	+·020
August	1·162	1·177	+·015	1·149	1·167	+·018	1·206	1·306	+·100
September ...	·962	·922	—·040	·936	·976	+·040	·977	1·122	+·145
October	·481	·505	+·024	·493	·498	+·005	·591	·600	+·009
November ...	·416	·445	+·029	·431	·444	+·013	·490	·512	+·022
December ...	1·027	1·027	...	·974	1·042	+·068	·934	1·089	+·155
Year	1·546	13·470	—·076	13·385	13·758	+·373	13·981	14·573	+·592

RAINFALL AT THE ROYAL OBSERVATORY, GREENWICH.

Lat. 51° 28′ 38″ N. Long. 0° 0′ 0″

Communicated by W. H. M. CHRISTIE, ESQ., M.A., F.R.S., F.R.A.S., &c., Astronomer Royal.

No. of days on which rain fell.	1884	MONTHLY AMOUNT OF RAIN COLLECTED IN EACH GAUGE.							
		Osler's Anemometer.		On roof of Octagon Room.	On roof of Magnetic House.	On roof of Photographic Thermometer Shed.	Gauge partly sunk in the ground. *a*	Gauge partly sunk in the ground. *b*	Gauge partly sunk in the ground. *c*
		Self-registering Gauge.	Second Gauge.						
		in.	in.	in.	in.	in.	in.	in.	in.
15	Jan. ...	·869	·831	1·165	1·452	1·714	1·771	1·677	1·740
13	Feb. ...	·841	·841	1·165	1·245	1·391	1·496	1·413	1·457
11	March	·942	·951	1·023	1·175	1·332	1·369	1·252	1·334
15	April..	·770	·794	·936	1·009	1·103	1·108	1·007	1·050
10	May ...	·614	·565	·685	·843	·942	·959	·890	·941
8	June...	1·938	1·896	2·060	2·160	2·235	2·244	2·200	2·210
16	July ...	1·285	1·059	1·360	1·593	1·705	1·771	1·678	1·720
8	Aug....	·468	·413	·582	·630	·655	·667	·647	·656
12	Sept...	1·178	1·151	1·620	1·992	2·081	2·090	2·076	2·085
12	Oct. ...	·544	·519	·669	·961	1·025	1·041	1·019	1·020
12	Nov ...	·562	·543	·751	·906	·988	·993	·990	1·003
18	Dec. ..	1·280	1·258	1·823	2·085	2·350	2·538	2·495	2·511
150	Sums..	11·291	10·821	13·839	16·051	17·521	18·047	17·344	17·727

The heights of the receiving surfaces are as follows:

	Above the mean level of the Sea.			Above the Ground.		
	ft.	in.		ft.	in.	
The two Gauges at Osler's Anemometer	205	6	...	50	8	
Gauge on the roof of the Octagon Room	193	2	...	38	4	
Gauge on the roof of the Magnetic House	176	7	...	21	9	
Gauge on the roof of the Photographic Thermometer Shed	164	10	..	10	0	
The three Gauges, partly sunk in the ground	155	3	...	0	5	

In regard to the ground gauges, (*a*) is the old daily gauge; (*b*) the old monthly gauge; and (*c*) an additional ground gauge.

The gauges are all read daily. A rainy day is considered to be one on which 0·005 in., or more, is collected in the ground gauge (*a*).

WILLIAM ELLIS,
For the Astronomer Royal.

March 26th, 1885.

[Gauges *a b* and *c* were moved on April 1, *a* 1 ft. S.S.E., *b* 6 ft. S., and *c* 11 ft. W.S.W.]

THE STAFF OF OBSERVERS.

COUNTY ORGANIZATIONS.

THE changes in this class of work have not been very extensive; we proceed to enumerate those of which we aware.

KENT.—There are two organizations in this county, each taking only a portion of it. Mr. R. M. Mercer, of Sittingbourne, has largely increased his body of correspondents, and, thanks to him alone, several records have, and one perfect one has, been received from the Isle of Sheppey. The Rev. C. H. Fielding, son of an old correspondent, Dr. Fielding, of Tunbridge, is collecting records in the vicinity of Rochester, and publishing them in the *Rochester Naturalist.*

SUSSEX.—We believe that no one is now collecting returns in this county.

HERTFORDSHIRE.—The returns for Herts and from a few stations just beyond the county boundaries are collected by the Rev. C. W. Harvey, and published in the *Transactions of the Hertfordshire Nat. Hist. Soc.*

NORTHAMPTONSHIRE.—The records for this county are collected by Mr. H. Terry, and published in the county papers.

CAMBRIDGESHIRE.—The preparation of the local tables for this county has been transferred to Mr. H. F. Fryer, of Chatteris.

The ESSEX and NORFOLK local publications continue as heretofore.

The WILTSHIRE system, after being developed to a remarkable extent by the Rev. T. A. Preston, is suddenly placed in considerable difficulty by the prospective removal of Mr. Preston to another part of England.

The DEVON and CORNWALL, GLOUCESTER, and HEREFORD systems continue the same as in previous years.

CHESHIRE.—A new system for this county has been started through the kind assistance of Mr. E. Wells, C.E.

We have not seen any monthly tables for GLAMORGANSHIRE or for the ISLE OF MAN for a long time, but they are probably continued.

CHANGES IN, AND NOTES UPON, THE STAFF.

The following list does not call for many comments besides those given in other parts of the volume, but at the end of the list we cite a few.

ENGLAND AND WALES.

ABSENT RECORDS.	INSERTIONS.
MIDDLESEX (56).*	
Isleworth (Dunster Lodge) *2nd g.—Record imp.*	Sunbury (Hanworth Road).
Ealing (Local Board Office)—*Record imp.*	Kensal Green (Gas Works).
Child's Hill (Helenslea N.W.)—*Gauge leaky.*	Perivale (Sewage Farm).
Upper Clapton—*Gauge moved.*	Hampstead (Branch Hill Lodge) *2nd g.*
Winchmore Hill (Chase Side)—*Record imp.*	Upper Clapton (Warwick Road).
	Finsbury Park.
	Finchley, East (Ardencaple).
	Great Stanmore (Springlands) *2nd g.*
SURREY (74).	
Godalming (Meadow Side)—*Record ceased.*	Haslemere (Grayswood Hill).
Titsey (Botley Hill) [Westerham]—*Record imp.*	Dorking.
Wallington—*Record ceased.*	Weybridge Heath (Bartropps).
Sutton (Grange Road)—*Gauge blown over.*	
KENT (82).	
Dover Station—*Record ceased.*	Dover (Kearsney Abbey).
Tunbridge Wells (Sherwood)—*No record.*	Tunbridge Wells (Camden Park).
Tunbridge (Hadlow)—*Observer moved.*	Ashford (Eastwell Vicarage).
Edenbridge (Falconhurst)—*Record imp.*	Lower Walmer.
Sevenoaks (Ide Hill)—*Record ceased.*	Maidstone Hospital.
Selling (Gosmere)—*Observer dead.*	Bicknor Rectory.
Canterbury (Harbledown)—*Record imp.*	Wrotham (The Elms).
Birchington (Thor)—*Record unreliable.*	Sittingbourne (Rodmersham).
Hayes Common (The Oast Ho) *Record unreliable.*	Faversham (Oare).
Bromley—*Record ceased.*	Hayes Common.
	Sheppey (Greenborough).
	Frindsbury (Manor Farm).
	Forest Hill (Newfield House).
	Eltham (Ellerslea, Southend).
	Eltham Green, *2nd g.*
WEST SUSSEX (23).	
EAST SUSSEX (41).	
Beachy Head *2nd g—Record imp.*	Brighton (Old Steine).
Brighton (St. James' Street)—*Record ceased.*	Hastings (Buckshole).
Hastings (Infirmary)—*Record ceased.*	Lewes (Castle Place).
Poyning (Dyke House)—*No reply.*	Burgess Hill.
Mayfield (Woodleigh)—*Record ceased.*	Frant (Myrtle Villa).
Forest Row (Ashdown Cottage)—*Record imp.*	
HAMPSHIRE (62).	
Lymington (Wainsford)—*No reply.*	Christchurch (Kenilworth).
Botley (Moorhill, Shedfield)—*Record ceased.*	Emsworth (Redlands).
Romsey (Michelmersh Rectory)—*Record ceased.*	Alton (East Worldham).
Alresford (Arle Bury)—*Record lost.*	Whitchurch (Long Parish).
Strathfield Turgiss—*Record ceased.*	,, (North Litchfield).
,, ,, (Field)—*Record ceased.*	Heckfield Place.

* This shows the total number of perfect records for 1884, received from the county.

BERKS (20).

Old Windsor (Beaumont College)—*Record imp.*
Wantage (Letcombe Regis)—*Record destroyed.*
Newbury (Weston).
Yattendon.
Long Wittenham, 2*nd g.*

HERTS (38).

Watford (Orphan Asylum)—*Record ceased.*
Hoddesdon—*Record ceased.*
Gt.Berkhampstead(Sunnyside)—*Record ceased.*
Hatfield (Brocket Hall)—*No reply.*
Ware(Fanham's Hall), 2*nd g.*—*Gauge incorrect*
Stevenage—*Record ceased.*
Royston (Barley)—*Gauge moved.*
Rickmansworth (Moor Park).
Watford (Watford House).
Gt. Berkhampstead (Lower Mill).
Hertford (Haileybury College).
Bennington Lodge.

BUCKS (13).

Aylesbury (Mentmore)—*Record imp.*
Buckingham (School Lane)—*Observer dead.*
Brill.
Olney (Filgrave Rectory).

OXFORD (26).

Henley-on-Thames (Nettlebed)—*Record ceased.*
Wallingford (Dorchester)—*Gauge leaky.*
Woodstock (Wootton Rectory)—*Observer dead.*
Chipping Norton (Kingham) *Record imp.*
Stanton St. John's (Woodperry).
Steeple Aston.
,, ,,
Banbury (Swalcliffe Park).

NORTHAMPTON (30).

Weedon Beck—*Record ceased.*
Thrapstone (Twywell)—*Record imp.*
Grimsbury [Banbury].
Thorpe Mandeville [Banbury].
Litchborough.
Wellingborough.
Brixworth.

HUNTS (7).

Godmanchester (Farm Hall)—*Record ceased.*
Alconbury.
Somersham.
Wistow.

BEDFORD (20).

Ampthill (Haynes Vicarage).

CAMBRIDGE (34).

Abington Pigotts [Royston]—*Observer dead.*
Cambridge (Beaconsfield Villa)—*Record ceased.*
Caxton (Papworth Everard)—*Record ceased.*
Odsey Grange [Royston] 2*nd g.*
Papworth Hall.
Thorney (Wryde House).

ESSEX (38).

Buckhurst Hill (The Elms)—*Record ceased.*
Manningtree (Lawford)—*Return not received.*
Barking (Gt. Gearies, Ilford).
Woodford (Haggan Lane).
Chelmsford (Gt.BaddowVineyards)
Great Bentley (Wick St. Osyth).

SUFFOLK (34).

Hadleigh (Boxford)—*Observer dead.*
Saxmundham (Carleton Hall)—*No reply.*
Bury St. Edmunds (Abbeygate Street)—*Return not received.*
Stradbroke—*Observer dead.*
Beccles (Worlingham)—*No reply.*
Ipswich (Belstead Hall) *2nd g.*
,, (Playford).
Stowmarket (Upland Hall).

NORFOLK (55).

Norwich (Eaton)—*Observer dead.*
Filby—*No reply.*
Hockering—*Record imp.*
Hindringham—*Record ceased.*
Ellingham [Beccles].
Loddon (Bergh Apton).
Mulbarton.
Acle.
Swaffham.
Oby.
Aylsham (Woodgate).
Cromer (Northrepps).

WILTS (52).

Amesbury—*Record imp.*
,, (Figheldean)—*Record imp.*
Great Bedwyn—*Gauge moved.*
Lye Hill—*Record imp.*
Malmesbury (Minety)—*Record imp.*
Broad Chalke.
Market Lavington (Gt. Cheverell).
Trowbridge.
Alton Barnes.
Chippenham (Lacock).
Marlborough (Mildenhall).

DORSET (19).

Swanage—*Record ceased.*
Bridport (West Street)*Record ceased.*
Sherborne School—*Observer left.*
Weymouth.
Little Bredy.
Poole (Parkstone).

DEVON (86).

Kingsbridge (Fore Street Hill)—*Record ceased.*
Ivybridge—*Record ceased.*
Princetown (Cowsic Valley)—*Record imp.*
Uplyme [Lyme Regis]—*Gauge moved.*
Honiton (Gittisham)—*Record imp.*
Bolt Tail.
Kingsbridge.
Ashburton (Leusden Vicarage).
Rousdon [Lyme Regis].
Exeter (St. Leonard Road).
,, (Brampford Speke) *3rd g.*
Bradninch Vicarage (*2nd g.*)
Holsworthy (Cookbury Week).
Beaford.
Church Stanton.
Hartland Abbey.
South Molton (Castle Hill).
W. Buckland (Devon County School).

CORNWALL (38).

Helston (Gwealhellis)—*No reply.*
Penzance (Regent Terrace)—*Record ceased.*
Helston (Godolphin Vic.)—*Record imp.*
Truro (Redruth Road)—*Record ceased.*
Camelford—*Record ceased.*
Par Station (Penellick).
Launceston (South Petherwin).

SOMERSET (40).

Yeovil (West Coker)—*Record ceased.*
Ilchester (Chilton Cantelo)—*Record ceased.*
Taunton (Fullands School)—*Record ceased.*
Wiveliscombe (Withycombe House)—*No reply.*
Porlock Rectory—*No record.*
Radstock (Downside)—*No reply.*
Yatton (Chelvey)—*Record unreliable.*
Milverton (Halse).
Wiveliscombe (Willett House).
Shepton Mallet.
Wells (Westbury).
Weston-super-Mare (Kewstoke).

GLOUCESTER (49).

Cirencester (The Firs)—*Record ceased.*
,, (Further Barton)—*Gauge moved.*
,, (,, ,,) *2nd. g. moved.*
Newnham-on-Severn.
Gloucester (Lower Barton Street).
Andoversford (Hampen).
Tewkesbury (Beckford).

HEREFORD (22).

Longtown Vic. [Abergavenny]—*Record ceased.*
Brockhampton Court—*Record imp.*
Hereford (Richmond Place)—*Observer left.*

SHROPSHIRE (26).

Coalbrookdale (Horsehay)—*No reply.*
Shrewsbury (Abbotsfield)—*No reply.*
,, (Leaton Vicarage)—*Record imp.*
Ludlow (Ashford).
Craven Arms (Stokesay Vicarage).
Burwarton.
Hanwood.
Whitchurch (Green End).

STAFFORD (27).

Cheadle (Oakamoor)—*No reply.*
Alstonfield Vicarage—*Record imp.*
Leek—*Record unreliable.*
Perry Hall [Birmingham].

WORCESTER (26).

Worcester (St. John's)—*Gauge moved.*
Great Malvern (Madresfield Court)

WARWICK (25).

Kenilworth (Thickthorns)—*Record ceased.*
Kenilworth (Fern Bank).
Birmingham (The Crescent).
,, (Winson Green), *2nd g.*

LEICESTER (20).

Market Harborough (Foxton Locks)—*Observer dead.*
Leicester (Salisbury Road)—*Record ceased.*
Loughborough (Nan Panton Res.), *2nd g.*—*No record.*

RUTLAND (9).

LINCOLN (54).

Stamford (Castle Cottage).
Spilsby.
Alford (The Burial Ground).
Louth (Westgate).
Wroot Engine.

NOTTS (34).

Cropwell Bishop (Cropwell Butler)—*Record ceased.*
Nottingham (The Park), *2nd g.*—*Gauge moved.*
,, (Woodborough Road)—*No reply.*
Worksop (Hodsock Priory), *3rd g.*—*Record ceased.*
Nottingham (Park Hill).
Newark.

DERBY (36).

Derby (Spondon)—*No reply.*
Alfreton (Butterley Hall)—*Record ceased.*
Buxton (Devonshire Hospital), *2nd g.*—*Record ceased.*
Barlow Reservoir—*Record ceased.*
Mickleover Manor.
Chesterfield (Grassmoor Colliery).

CHESHIRE (55).

Bowdon (Erlesdene), *2nd g.*—*Record ceased*
Chester (Abbots Hayes).
Frodsham (Dunsdale).
Disley.
Stockport (Cheadle Hulme).
Thelwall (Millington House).

LANCASHIRE (145).

Liverpool (St. Michael's Hamlet) — *Record ceased.*
Manchester (Withington)—*Record ceased.*
,, (Urmston)—*Gauge moved.*
,, (Alexandra Park)—*Record imp.*
Eccles (Monton Green)—*No reply.*
Oswaldtwistle—*No reply.*
Clitheroe (Low Moor)—*Record imp.*
Garstang (Winmarleigh Vic.)—*Record imp.*
Lancaster (Halton Park)—*Observer moved.*
Hawkshead—*No reply.*
Liverpool (Hope Street).
Manchester (Embden Street).
Lytham (Clifton Square).
Accrington (Milnshaw Grounds).
Burnley.
Preston (Haighton).
Beaton Fell (Barnsfold), *2nd g.*
Galgate.
Wyresdale (Abbeystead).
,, (Old Gauge Basin).
Quernmore (Brow Top).
Ulverston (Swarthdale).
Blawith.

YORK, WEST RIDING (167).

Sheffield (New Shoreham Street)—*Record ceased.*
Dunford Bridge Res., *2nd g.*—*Record ceased.*
Wakefield (Hardy Croft)—*Record ceased.*
Pontefract (Fern Hill)—*Record imp.*
Wakefield (Springfield, Outwood) — *Record ceased.*
Bradford (Leeshaw Reservoir)—*Record imp.*
Bingley (The Grange)—*No reply.*
Leeds (Eccup)— *Gauge moved.*
,, ,, *2nd g.*—*Gauge moved.*
Ilkley (West Parade)—*Observer dead.*
Pateley Bridge (Castle Stead).—*No reply.*
Ripon (The Precentory)—*Record ceased.*
Arncliffe (Halton Gill)—*Record imp.*
Holmbridge (Batley Waterworks).
Doncaster (Burghwallis Rectory), *2nd g.*
Huddersfield Cemetery.
Leeds (Eccup South).
Guiseley (Tranfield Lodge).
Harrogate.

YORK, EAST RIDING (24).

Hull (Spring Bank)—*Record ceased.*
,, (Citadel Estate)—*Record ceased.*
Beverley (Tickton)—*No reply.*
Hull (Alexandra Dock).
Beverley (Leconfield).
Hunmanby (Wold Newton).

YORK, NORTH RIDING (36).

Bishopdale (The Rookery)—*Record ceased.*
Reeth (Eskeleth House)—*No reply.*
Bowes—*Record ceased.*
Guiseborough (Lockwood Beck Res.)—*2nd g. Return not received.*
Balder Head [Brough].—*Record ceased.*
Melmerby (Baldersby).
Masham (Burton House).
Aysgarth Vicarage—*2nd g.*
Hambleton Hills (High Paradise).
Ingleby Manor.
,, Greenhow Vicarage.
Mickleton (Lime Kiln Pasture.)—*2nd g.*
Redcar (High Cliffe, Coatham).

DURHAM (24).

Darlington (Heighington)—*Observer dead.*
Shotley Bridge (Shotley Park)—*Record imp.*
Tow Law (The Manse).
Sunderland (W. Hendon Ho.)—*2nd g.*
South Shields (Borough Hospital.)

NORTHUMBERLAND (51).

Corbridge-on-Tyne (Lauder Grange)—*Record ceased.*
Morpeth (Earsdon)—*Record ceased.*
,, ,,)—*2nd g. Record ceased.*
Alnwick Bondgate)—*Record ceased.*
Newcastle (Clifton Road), *2nd g.*
,, (Osborne Road).
North Shields (Monkseaton).
Morpeth (Bothalhaugh Lawn).
,, (,,) *2nd g.*
Felton.
,, *2nd g.*
Alwinton (Harbottle Castle).

CUMBERLAND (62).

Egremont (Calder Abbey)—*Record ceased.*
Scawfell Pike—*Record imperfect.*
Penrith (Culgaith Vic.)—*Gauge changed.*
The Stye—*2nd g.*
Keswick (Derwent Island)—*2nd g*
,, (Post Office)—*2nd g.*
Threlkeld Rectory.
,, (Settra).
,, (Blencathra).
Penrith (Skirsgill Park).
,, (Edenhall Vicarage).
Hesket Newmarket.

WESTMORELAND (32)

Kirkby Lonsdale—*No record.*
Ambleside (Brathay Vic.)—*Gauge moved.*
Haweswater(Mardale,ChapelHill)—*Record imp*
Hurth Syke [Alston]—*Record ceased.*

MONMOUTH (16).

Pontypool (Trevethin Vic.)—*No reply.*
Chepstow (Shirenewton Hall).
Abergavenny (Dyne House).

GLAMORGAN (20).

Porthkerry (The Buttrills)—*No reply.*
Cardiff Cemetery—*Gauge moved.*
Cardiff (East Moors).
Neath (Morriston).
Felindre (Lliw Reservoir).

CARMARTHEN (5).

Llandilo (Golden Grove)——*Record unreliable.*

PEMBROKE (7).

Solva—*Record ceased.*
St. David's—*Gauge moved.*

CARDIGAN (3).

Lampeter (St. David's College)—*No record.*
Waenbwll [Machynlleth]—*Return not received.*
Aberystwith (Gogerddan).

BRECKNOCK (9).

RADNOR (4).

Llandrindod Wells—*Record ceased.*
Presteign (Hereford Street)—*Observer left.*
Llanstephan.
Old Radnor (Walton Court).

MONTGOMERY (16).

Dylife Lead Mine—*Gauge tampered with.*
Llanidloes (Broomcliffe) *2nd g.*
Carno (Llanwnog).
Llanwddyn (Cefn-glas).

FLINT (7).

DENBIGH (17).

Wrexham (Brymbo)—*Record ceased.*
Chirk (Brynkinalt).
,, (Cefn-y-wern).
Denbigh (Garn).

MERIONETH (6).

Aberdovey—*Record imp.*
Dolgelly (Hengwrt)—*Record ceased).*

CARNARVON (13).

Llandwrog (Glynllivan Garden) *2nd g.*—*Return not received.*

ANGLESEA (2).

Holyhead (Plas Rhos-colyn)—*Record ceased.*
,, —*Record imp.*

ISLE OF MAN (11).

Peel—*Gauge moved.*
Kirkmichael (Druidale)—*Gauge moved.*
Port Erin.
Douglas (Derby Square).

ISLES OF SCILLY (1).

JERSEY (3).

GUERNSEY (3).

Guernsey (Buen Retiro)—*2nd g.*

SCOTLAND.

WIGTON (4).

Wigton (North Balfern)—*Record ceased.*

KIRKCUDBRIGHT (8).

Twynholm (Largs)—*Record ceased.*
New Galloway (Glenlee)—*Gauge moved.*

DUMFRIES (10).

Ecclefechan (Springkell)—*No reply.*
Thornhill (Capenock)—*Record imperfect.*

ROXBURGH (10).

Teviothead Mance—*Observer dead.*
Hawick (Silverbut Hall)—*Record ceased.*
Hawick (Wolflee).

SELKIRK (4).

Selkirk (The Hangingshaw).

PEEBLES (7).

BERWICK (5).

Coldstream (Milne Graden)—*Return doubtful.*
Dunse (Clouds).

HADDINGTON (4).

EDINBURGH (23).

Mid Calder (New Park House)—*Return not received.*
Pentland Hills (Swanston)—*Gauge out of order.*
Inveresk—*Observer dead.*

LINLITHGOW (2).

Linlithgow (Rockville).

LANARK (12).

Glasgow (Belvedere Hospital)—*Return not received.*

AYR (15).

Dalmellington—*Return not received.*
Ayr (Auchendrane)—*Return not received.*
Kelly Gardens [Wemyss Bay]—*Record imp.*
Barrhill (Dochroyle).
Colmonell.
Dalry (Carsehead).
Paisley Water Works (Camphill).

RENFREW (24).

Wemyss Bay (Ferncliffe)—*Return not received.*

DUMBARTON (5).

Alexandria (Anchendennan)—*No reply.*
Balloch Castle—*No reply.*

STIRLING (7).

| Kippen.
| ,, (Boquhan).

BUTE (4).

Rothesay (Loch Dhu)—*No observations.*

ARGYLL, MAINLAND (17).

Ballachulish—*Gauge moved.*

| Holy Loch (Rosmor).
| Loch Eil (Conaglen).

ARGYLL INSULAR (19).

Islay (Ardbeg)—*Gauge moved.*

CLACKMANNAN (3).

Dollar (Blairhill)– *Return not received.*

| Tillicoultry (Tillicoultry House).

KINROSS (3).

FIFE (11).

Dunfermline (Craigluscar)—*No reply.*
Cupar—*Return not received.*

| Pittenweem (The Priory).
| St. Andrews (The Priory).

PERTH (29).

Auchterarder (Glensherup)—*No reply.*

| Menteith (Cardross).

FORFAR (12)

| Dundee (Eastern Necropolis)

KINCARDINE (3).

ABERDEEN (23).

| Aboyne (*G*len Tana).
| Ellon (Kermuck).
| Peterhead (Buchanness).

BANFF (4).

| Cullen House.

ELGIN (6).

NAIRN (2).

WEST ROSS (12).

EAST ROSS (9).

WEST INVERNESS (12).

Isle of Skye (Broadford)—*No reply.*
,, ,, (Dunvegan)—*No observations.*
,, ,, (Sligachan) *2nd g.—Return imp.*
S. Uist (Ushenish)—*Record unreliable.*

| N. Uist (Loch Maddy).

EAST INVERNESS (10).

Loch Ashie—*No reply.*

Invergarry House.
Kingussie.
Fort Augustus (St. Benedicts).

SUTHERLAND (12).

Invershin (Rose Hall)—*No reply.*

CAITHNESS (7).

ORKNEY (10).

SHETLAND (5).

Lerwick (Montfield).
Olnafirth School.

IRELAND.

CORK (9).

Dunmanway (Coolkelure).
Fermoy (Gas Works).

KERRY (9).

Cara (Lodge)—*Gauge upset.*
Tralee (Ardfert Abbey)—*Record imp.*

Mangerton.
Dingle.

WATERFORD (5).

Portlaw (Curraghmore)—*Observer left.*

TIPPERARY (7).

Lockeen Glebe [Shinrone]—*Record ceased.*

Fethard (Mobarnane).
Derrycastle [Killaloe].
Ballingarry (Hazelfort).

LIMERICK (3).

CLARE (4).

Sixmilebridge (Kilkishen).

WEXFORD (4).

KILKENNY (4).

WICKLOW (2).

Enniskerry (Parknasillogе).

CARLOW (1).

QUEEN'S COUNTY (1).

KING'S COUNTY (4).

Tullamore—*Observer dead.*

KILDARE (1).

DUBLIN (8).

Rathmines (Sunbury Gardens)—*Record ceased.*
Balbriggan—*Observer absent.*

MEATH (4).

WESTMEATH (2).

LOUTH (4).

LONGFORD (1).

GALWAY (9).

Clifden (Kylemore)—*Record imp.*

Galway (Spiddle).

MAYO (4).

SLIGO (4).

Collooney (Markree Observatory)
,, (,, ,,)

LEITRIM (2).

Ballinamore (Lawderdale).

CAVAN (1).

Killeshandra (Drummany)—*Observer left.*

FERMANAGH (4).

Enniskillen (Lisbellaw) *2nd g.*

MONAGHAN (1).

ARMAGH (5).

DOWN (15).

ANTRIM (12).

Belfast (Divis Mountain).
,, (Glenbank).
Broughshane (Quolie).

LONDONDERRY (11).

Ballykelly (Drummond)—*Record ceased.*

Garvagh (Moneydig).
Coleraine.

TYRONE (8).

Beragh (Clogherny Rectory)—*Observer dead.*

Auchnacloy.
Dungannon (Rockdale), *2nd g.*

DONEGAL (6).

Ramelton—*Record ceased.*
Carndonagh—*Record imp.*

Buncrana (Sea View).

REMARKS.

KENT.—A decided improvement along, and near to, the North coast.

DORSET.—A useful station at Little Bredy, where Mr. H. S. Eaton made valuable observations upwards of twenty years ago.

DEVON.—A decided improvement in the N.W. of the county.

CORNWALL.—Several serious losses, *e.g.*, Helston and Godolphin Vicarage.

LANCASHIRE, and YORKSHIRE, W.R.—In both these counties the changes have been too numerous. In Lancashire, however, we are very glad to find that the geographical importance of the new stations far surpasses that of the old ones. We welcome, at last, records from the Lancaster Water Works.

CUMBERLAND.—We are glad to have for the first time records from three stations near Blencathra, or, as it is irreverently translated, Saddle-back.

MERIONETH.—The non-arrival of the Aberdovey record is very regrettable, since it leaves us with only one station along the whole coast of Cardigan Bay.

In the ISLE OF MAN, thanks to the help of Mr. A. W. Moore, the records of rainfall are improving both in quantity and quality. We have lent to him a disused Cumberland mountain gauge, and it is now at work nearly at the top of Snaefell.

ARGYLL.—We are very sorry that two valuable observers, by moving their rain gauges during the year, have rendered it impossible to quote their returns for 1884.

The new stations in EAST INVERNESS, in SHETLAND, in CORK, and in KERRY are of special importance.

SUMMARY.

The final summation of the perfect records published in the present volume is shown by the last line in the following table.

Number of perfect rainfall records published in the volumes of British Rainfall for the undermentioned years :—

Years.	England.	Wales.	Scotland.	Ireland.	Total.
1860	163	5	—	—	168
1861	334	9	109	20	472
1871	1038	88	311	67	1504
1881	1548	131	313	153	2145
1882	1710	145	335	148	2338
1883	1785	145	357	146	2433
1884	1812	175	353	155	2495
Difference from 1883.					
Increase	27	30	—	9	62
Decrease	—	—	4	—	—

From this we see that the staff is still steadily increasing, but is still doing so chiefly in parts of the country in which in most respects increase is least needed.

OBITUARY.

OUR list this year is very long, and contains an unusual proportion of our leading helpers. As is shown by the asterisk there are three of the contributors to our first issue. With reference to length of record we feel in some uncertainty as to whether our deceased correspondents had really made all the observations which stand in their names—if they had, the first three names would be

Mr. McAuslane, Inveresk, Edinburgh	... ...	47 years.
Mr. J. F. Bentley, Foxton, Market Harboro'	...	46 ,,
Rev. Dr. Clouston, Sandwick, Orkney	... ...	44 ,,

but the first two were semi-official records and the earlier years may not have been observed by them. As to Dr. Clouston's record there is no uncertainty; and from its length, from its position, and from the great care with which the observations were made it was a very valuable register. Another great loss is that of Mr. H. C. Marshall, who was not only a careful observer, but who also rigorously scrutinized the various records kept by his direction, and to whom also we are indebted for a second Seathwaite station, the gauge being placed upon land belonging to himself and observed by one of his agents. He was also a liberal contributor to our funds. We are glad to report that his sons Mr. John and Mr. S. Marshall will, at any rate for the present, continue nearly all the records.

OBSERVERS DECEASED TO JUNE, 1885.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records.
Adamson, Rev. W. R. C., Ashtead Rectory, Epsom	1881–82	2
Baker, G., Esq., Holmfels, Reigate	C 1881 imp –84	3
*Barham, C., Esq., M.D., Truro	1869–76 imp T	7
Bentley, J. F., Esq., Foxton, Market Harborough	1838–83 T	46
Bigge, Rev. J. F., Stamfordham Newcastle-on-Tyne	C 1854–84 T	31
Bland, Rev. R. W., White Abbey, Belfast	1875–80 T	6
Bravender, F., Esq., Cirencester	1869–84 T	16
Buckman, J. Esq., Bradford Abbas, Sherborne	C 1883 imp T	0
Butcher, W. Esq., Gosmere, Selling	1875–83 T	9
Catchpole, J. T., Esq., Stradbroke, Suffolk	C 1879 imp –83 T	4
Clouston, Rev. C., LL.D., Sandwick, Orkney, N. B.	C 1840 imp –84 C	44
*Clutterbuck, Rev. J. C., Long Wittenham, Berks	C 1851–84 C	34
Day, C., Esq., Easton House, Stamford	C 1867–84	18

OBSERVERS DECEASED TO JUNE, 1885.	PERIOD OF OBSERVATION. DATE.	Perfect Yearly Records.
Dees, J. W., Esq., Wallsend, North Shields	C 1859-84 C	26
Dixon, Venble. Archdeacon, Clogherny, Beragh	1877-83 T	7
Drewitt, Mr., Denbies, Dorking	C 1861 T	1
Fison, J. Esq., Barningham, Ixworth, Suffolk	C 1865 imp -76 C	11
Foster, W., Esq., Queensbury, Bradford	C 1865-84 C	20
Foster, Miss, Abington Pigotts, Royston	1878-83 T	6
Gamlen, W. H. Esq., Bramford Speke, Exeter	C 1865-84	20
Gibbons, Rev. G. B. — Werrington Vic., Launceston	C 1873 imp -74 T	4
Gibbons, Rev. G. B. — Camelford, Cornwall	C 1880 imp -83 T	
Gordon, Rev. F., Biddulph Moor, Congleton	C 1877 imp -79 imp T	1
Gritton, Major — Tytherton Lucas, Chippenham	C1865 imp -76 impT	18
Gritton, Major — Holt, Trowbridge, Wilts	C 1876 imp -84 T	
Hainsworth, Mr. J., West Parade, Ilkley	C 1877-83 C	7
Hearder, H. Esq., Rocombe House, Torquay	C 1877 imp -84 C	7
Hodgson, Dr. R., Northallerton	C 1868 -84 C	17
Kane, H. J. B., Esq., Tullamore, Ireland	C 1850-83 T	34
*Leather, J. T., Esq. — Portland Breakwater	C 1856-65 T	10
*Leather, J. T., Esq. — Leventhorpe Hall, Leeds	C 1855-84	30
*Leather, J. T., Esq. — Middleton Hall, Belford	C 1864-84	21
Lindsay, C., Esq., Ridge Park, Lanark	1870-84 T	15
Marshall, H. C., Esq. — Weetwood Hall, Leeds	C 1865-83 C	19
Marshall, H. C., Esq. — Seathwaite, Cumberland	C 1875 imp -83 C	8
Marshall, H. C., Esq. — Derwent Island, Keswick	C 1865-83 C	19
Marshall, H. C., Esq. — Deer Close, Keswick	C 1870-83 C	14
Marshall, H. C., Esq. — Crow Park, Keswick	C 1863-71 T	9
Marshall, H. C., Esq. — Tunstall, Catterick, Yorks.	C 1865 imp -83 C	18
McAuslane, Mr., Inveresk, Musselburgh, N.B.	1837-83 T	47
McCullough, Dr., Joint Co. Asylum. Abergavenny	C 1863 imp -82 C	20
Nelson, Sir T. J., Grove, Hampton Wick	C 1866-84	19
Peel, J., Esq., Knowlmere Manor, Clitheroe	C 1865, 1869-70	3
Pigou, Col., Beaford, Devon	C 1884-85 imp T	1
Pymar, J., Esq., Eaton, Norwich	C 1867-83 T	17
Robinson, Rev. A. E., Wootton, Woodstock	1880-83 T	4
Scarborough Rt. Hon. Earl of, Sandbeck Park, Tickhill	C 1877-84 C	8
Selkirk, Rt. Hon. Earl of, St. Mary's Isle	1883-84	2
Sidebotham, J., Esq., Erlesdene, Bowdon	C 1879 imp -84	5
Silver, Rev. F., Norton-in-Hales, Market Drayton.	C 1866-83 T	18
Sykes, J., Esq., Hardy Croft, Wakefield	1881-83 T	3
Tomlinson, H., Esq., Cherryhinton, Cambridge	C 1871-83 C	13
Wainwright, J., Esq., F.L.S., Outwood, Wakefield.	C 1882 imp -83	1
Walker, Mr. W., School Lane, Buckingham	1873-83 T	11
Walters, Mr., Stretham, Ely	1880-83 C	4
Whitten, J. S., Esq., Walsgrave, Coventry	C 1877 imp -83	6
Wilson, T., Esq., Thornton-in-Craven	C 1863-84 C	22
Wolseley, C. B., Esq., M.D., St. Helen's, Dunfanaghy	C 1873 imp -78 T	5
Young, Rev. R., Teviothead Manse, Hawick	C 1876 imp - 83 T	7

RAINFALL AND METEOROLOGY

OF

1884.

SYMBOLS EMPLOYED.

H.—Hail.
H.R.S.—Highland Railway Station.
L.—Lightning.
R.—Rain.
S.—Snow.
T.—Thunder.
TS.—Thunderstorm.

ON THE METEOROLOGY OF 1884.

WITH NOTES OF SOME OF THE PRINCIPAL PHENOMENA.

[These Notes should be read in conjunction with those on Heavy Rains in 1884.]

JANUARY.

2nd.—*Douglas, Victoria Road* (XI). S on the hills.—*Melrose, Abbey Gate* (XII). Hills white with S.

1st to 4th.—*Meltham, Harewood Lodge* (IX). Almost continuous wet fog.

5th.—*Shap, Copy Hill* (X). Strong gale all day.—*Watten, H.R.S.* (XIX). S.E. gale.

6th.—*Melrose, Abbey Gate* (XII). Westerly gale.—*St. Andrews, Newton Bank* (XVI). Heavy S.E. gale at night.—*Dalnaspidal, H.R.S.* (XVI). Gale and R.

9th.—*Holsworthy, Clawton* (V). Quite hot, birds singing.—*Llanerchymedd, Llwydiarth Esgob* (XI). Animals killed by L.

10th.—*Forsinard, H.R.S.* (XIX). S and sleet.—*Lerwick, Montfield* (XIX). T, S and H.

11th.—*Diss* (IV). Gale from S.W. with H and R.—*Meltham, Harewood Lodge* (IX). A single flash of L and clap of T at 9.20 a.m. during a storm of sleet and H; also a complete though faint lunar rainbow at 5.25 p.m.—*Cantire, Stonefield, Tarbert* (XV). A violent storm doing great mischief.—*St. Andrews, Newton Bank* (XVI). S.E. gale at night with T.—*Stronvar* (XVI). An inch of S fell.—*Loch Shiel, Glenaladale* (XVIII). S on hills.—*Miltown Malbay* (XX). Heavy N.W. gale.—*Dowra* (XXIII). T and H.

16th.—*Croydon, Addiscombe* (II). Dense wet fog, house invisible at 100 yards.—*Nottingham, Strelley Hall* (VII). Very thick fog in afternoon.

19th.—*Ayr, Cassillis* (XIV). Severe gale at night.—*Miltown Malbay* (XX). S.W. gale.

19th to 21st.—*Watten, H.R.S.* (XIX). Great gale from S.W.

20th.—*Ayr, Cassillis* (XIV). Severe gale at night.—*Stronvar* (XVI).

Gale with R.—*Lochbroom* (XVIII). Hurricane.—*Loch Shiel, Glenaladale* (XVIII). Heavy gale from W.—*Forsinard, H.R.S.* (XIX). Great gale.—*Lerwick, Montfield* (XIX). Violent storm from S.W. to N.W. —*Galway, Queen's Coll.* (XXII). Heavy squalls at night.—*Ramelton, Killygarvan* (XXIII). W.S.W. gale, L at night.*

21st.—*Chesterfield, Brampton St. Thomas* (VII). Heavy gale.—*East Layton* (IX). Tremendous gale, a large conifer blown down. —*Budgate, Cawdor* (XVIII). Gale and R.—*Tipperary, Henry St.* (XX). Gale of wind.

22nd.—*St. Leonards* (II). S.W. gale at night.—*Diss* (IV). Strong gale from S.W. in the evening and night.—*Ross, The Graig* (VI). Gale and R —*Lincomb Lock* (VI). Southerly gale.—*Shap, Copy Hill* (X). Strong gale and heavy R.—*Llandovery* (XI). Heavy R and gale.—*Castle Malgwyn* (XI). Heavy gale.—*Abergwessin* (XI). Very stormy night; R 1·81 in.

22nd and 23rd.—*Dymchurch* (II). Severe gale.—*Northampton, Sedgebrooke* (III). Very strong wind with R storms.—*Oundle, Vine Cottage* (III). Heavy gale.—*Derby, Elvaston* (VII). Very heavy S.W. and W. gales.—*Walton-on-the-Hill* (VIII). Whole gale from W.

22nd to 26th.—*Unthank Hall* (X). Very heavy gale, commencing on 22nd, continuing with more or less force until the evening of 26th, when it increased to a hurricane, doing immense damage to buildings and plantations; bar. never seen so low before.

23rd.—*London, Lansdowne Crescent, W.* (I). Violent S.W. gale with R.—*Pinner Hill* (I). S.W. gale.—*Stanmore* (I). Tremendous gale of wind from S.W. to W. between 3 p.m. and midnight.—*Croydon, Addiscombe* (II). Fresh gale; mean velocity of wind during 16 hours ending 3 a.m. on 24th, 30 miles.—*Debtling* (II). Very rough from S.W., with R all day.—*St. Leonards* (II). W.S.W. gale after 11 a.m. —*St. Laurence* (II). Gale from S.W.—*Leyton Observatory* (IV). Gale all day.—*Rendlesham Hall* (IV). Heavy gale and R.—*Diss* (IV). Squally day, very heavy gale from S.S.W. at night.—*Ashburton, Druid House* (V). Heavy storm all day, H and S.—*St. John's* [*Devonport*] (V). Heavy W.S.W. gale all day.—*Launceston, Altarnum* (V). Heavy gale.—*Wincanton, Stowell Rect.* (V). Strong gale all day and night.—*Bath, Queen's Parade* (V). Gale with T, L, H and S.—*Ross, The Graig* (VI). River Wye in flood.—*Melton Mowbray, Coston* (VII). Fearful

* Jan. 20th–26th.—Respecting the storms, extreme barometric depression, and sudden rise of barometer during this period, see *Met. Mags.*, Feb., 1884; and W. Marriott, in Quar. Jour. R. Met. Soc., vol. x., p. 114.

gale at night with L.—*Stamford, Ketton Hall* (VII). N.W. gale.—*Nottingham, Strelley Hall* (VII). Westerly gale at night.—*Worksop, Hodsock Priory* (VII). Very severe gale; velocity of wind 61·5 miles from 10 to 11 p.m.; average for 16 hours 48·8 miles; many trees blown down.—*Macclesfield* (VIII). Gale from S.W.—*Elterwater, Woodlands* (X). Great gale, heavy R, sleet and S, 1·21 in.—*Port Madoc* (XI). Westerly gale.—*Douglas, Victoria Road* (XI). Whole gale from S.W.—*Stroncar* (XVI). Two inches of S fell.—*Newcastle West* (XX). Violent N.W. gale with H.—*Miltown Malbay* (XX). Furious S.W. gale veering to N., with T, L and H.—*Kilconnell* (XXII). Storm from N.W.—*Castlebar*(XXII). Heavy westerly gale.—*Newtownards* (XXIII). Terrific storm, wind 64 miles an hour.—*Cushendun* (XXIII). Hurricane; great damage to houses and timber.—*Killygarvan* (XXIII). Heavy S.W. gale all day.—*Buncrana, Rockfort* (XXIII). Severe storm, reaching its greatest force between noon and 1 p.m., and doing much damage to roofs of houses, &c.

23rd to 28th.—*Loch Shiel, Glenaladale* (XVIII). Very stormy, with heavy S daily.

24th.—*Luton* (III). Heavy gale.—*Ross, The Graig* (VI). Violent gale at night.—*Lincomb Lock* (VI). S.W. gale.—*Shap, Copy Hill* (X). R, H, S and sleet.—*St. Andrews, Newton Bank* (XVI). N.W. gale at night with L.—*Newcastle West* (XX). L, T, and H in evening; gale at night.—*Carrick-on-Shannon, Lawderdale* (XXII). Strong S.E. gale.

24th to 27th.—*Lochbroom* (XVIII). Great snowstorm and awful drifts caused by the hurricane on 27th.

25th.—*Abinger Hall* (II). Severe TS, lasting 15 minutes, at 5 p.m. —*Acrise* (II). Heavy TS from S., with H, S and heavy R; ·45 in. falling in ten minutes.—*Debtling* (II). Squally, with heavy showers, T and H.—*Hartley* (II). Gale with T and L.—*St. Leonards* (II). TS with H.—*Warbleton Rect.* (II). T and L about 6 p.m.—*Alton, Ashdell* (II). Very vivid L and T, with H.—*Diss* (IV). Fresh gale from S.W. —*Salisbury, Alderbury* (V). T and L.—*Compton Bassett* (V). T and L at 3 p.m.; rough night.—*Ashburton, Druid House* (V). Heavy storm in evening with L. *Highampton, Winsford* (V). Violent hurricane, and 1·00 in. of R.—*Wincanton, Stowell Rect.* (V). Sharp squalls and TS. —*Cheltenham* (VI). TS, S and H.—*Maisemore Lock* (VI). R, H, L and T.—*Burwarton* (VI). A violent hurricane of wind.—*Halifax, Thorpe* (IX). Hurricane of wind; pressure fell from noon to 5 p.m. at the rate of ·15 in. per hour.—*Ayr, Cassillis* (XIV). Gale with S, sleet and H.

25th and 26th.—*Holsworthy, Clawton* (V). Very stormy with T and L.—*Bath, Queen's Parade* (V). Gales with H and S.

25th to 27th.—*Stronvar* (XVI). More than a foot of S fell in the three days, and the gale on 27th made great drifts.

26th.—*London, Lansdowne Crescent* (I). Violent S.W. gale with heavy R, ·56 in.—*Stanmore* (I). Terrific gale from S.W. to W. after 4 p.m.—*Reigate, Ringley Mead* (II). Violent storm and very low pressure.—*Croydon, Addiscombe* (II). Pressure 28·548 in. at 7.40 p.m. Strong gale, max. hourly velocity of wind 40 miles.—*Hythe* (II). From 5.30 to 9 p.m. terrific hurricane, with heavy TS, R and H squalls.—*Acrise* (II). Heavy TS from S.; fearful gale in evening.—*Rodmersham* (II). High wind sprang up suddenly early in the afternoon, increasing to a hurricane towards night, blowing in terrific gusts between 6 and 8 p.m.; pressure fell gradually during the morning, but very rapidly later, reaching a very low reading at 8.30 p.m., and then rising as quickly as it had fallen; heavy R fell, and there was frequent L; much damage was done.—*Littlehampton* (II). Awful gale; a large pane of glass blown in from a window that had resisted all previous gales.—*St. Leonards* (II). Severe S.W. gale in evening and night, with TS and H.—*Warbleton Rect.* (II). A strong wind, which blew down trees, &c.—*St. Lawrence* (II). Very severe gale at night, with vivid L, T, H and R.—*Emsworth, Redlands* (II). Violent gale S. to S.W.—*Buntingford, Throcking Rect.* (III). Gale with L and H; pressure very low.—*Addington* (III). Heavy gale and much L at night.—*Northampton* (III). Heavy gale after noon, but not much damage done.—*Northampton, Sedgebrooke* (III). Rough and squally; L about 6.30 p.m.—*Oundle, Vine Cottage* (III). Hurricane, with heavy R, S, and flashes of L.—*Ely, Stretham Ferry* (III). Heavy TS.—*Southend* (IV). Strong westerly gales; TS at 8 p.m.—*Leyton Observatory* (IV). At 4 p.m. pressure began to fall rapidly, reaching at 6 p.m. the lowest point recorded here. Soon after 4 p.m. the wind rose quickly, and by 5 o'clock blew a strong gale. From then till 6 o'clock it amounted almost to a hurricane; H fell heavily about 6, and squalls of R passed over; the wind fell between 8 and 9 to almost a calm, but rose again and blew hard all night. L was very vivid for an hour from 9.30 p.m.—*Walthamstow, Prospect Hill Lodge* (IV). Gale in morning, L in evening.—*Earl's Colne, Chalkney House* (IV). Very heavy T and strong wind in the evening.—*Ipswich, Bishop's Hill* (IV). Very heavy gale, with R, H, T and L.—*Rendlesham Hall* (IV). Heavy gale in evening.—*Weybread Vic.* [*Harleston*] (IV).

Very low pressure ; hurricane during night.—*Diss* (IV). Tremendous gale from W., TS in evening.—*Compton Bassett* (V). Very rough day, with R and S ; hurricane at night.—*Torquay, Babbacombe* (V). Fearful S.W. gale, R, T and L.—*Ashburton, Druid House* (V). Heavy storm and hurricane 1.30 to 3.30 p.m., and 1·19 in. of R.—*St. John's* [*Devonport*] (V). Heavy gale, W.S.W. to W.N.W., with R and T.—*Wincanton, Stowell Rect.* (V). Heavy gale all day, with S; bar. at 6 p.m. 28·439 in.—*Maisemore Lock* (VI). Gale from W, R and H.—*Coventry, Coundon* (VI). Much L, violent wind and unusually low bar.—*Melton Mowbray, Coston* (VII). Terrible gale 4 to 8 p.m.—*Stamford, Ketton Hall* (VII). Stormy, with L, H and R at night.—*Caistor* (VII). T, L, S and H.—*Nottingham, Strelley Hall* (VII). Southerly gale all the evening and night, veering to W. ; pressure 28·322 in. (cor. and red.) TS from 6 to 6.30 p.m.—*Mansfield* (VII). Very violent gale, with S, vivid L and T.—*Worksop, Hodsock Priory* (VII). Violent gale, though not so severe as that of 23rd, velocity of wind from 5.30 to 6 p.m. 51 m. per hour. Pressure at 6 p.m. 28·292 in. (cor. and red.)—*Macclesfield* (VIII). Gale, S, R and L.—*Walton-on-the-Hill* (VIII). Gale from S. with R and S.—*Broughton-in-Furness* (VIII). Violent storm, with L, —*Hull, Derringham* (IX). A heavy gale commenced somewhat suddenly about 5.30 p.m., blowing with intense force from S.W. until 7 p.m., when it rapidly subsided almost to a calm, until about 9 p.m. it again rose, and continued with hurricane force throughout the night.—*Wetwang* (IX). TS and gale.—*East Layton* (IX). T and L. *Middlesborough* (IX). Heavy S.S.W. gale.—*Barnard Castle, Whorlton* (X). Gale from W, with T, H, and S.—*Morpeth, Bothalhaugh* (X). A great gale, with pressure very low.—*Cockermouth, Higham* (X). A great storm of wind from N.W.—*Penrith, The Luham, Edenhall* (X). Great storm with extremely low barometer.—*Carlisle Cemetery* (X). A terrific hurricane, dislodging slates from several houses in the town, blowing down several chimneys and five headstones at the cemetery. —*Elterwater, Woodlands* (X). Great gale, with S, sleet, R and L.—*Shap, Copy Hill* (X). Great storm of S, sleet, and R.—*Llanfrechfa Grange* (XI). Violent S.W. wind, T, L, and heavy R.—*Llandovery* (XI). The heaviest gale remembered from 1 p.m. to 5 p.m.—*Castle Malgwyn* (XI). Heavy gale, H at night.—*Abergwessin* (XI). Very stormy, 1·18 in. of R, rivers very high.—*Carno, Tybrith* (XI). Two inches of S, but it soon disappeared.—*Garliestown, Galloway House* (XII). Very severe storm of wind, which swept down thousands of trees in this district, the ground at the time being saturated with

water.—*Crichton Inst.* (XII). Terrific S.W. gale.—*Girvan, Pinmore* (XIV). Severe storm; pressure fell almost 2½ in. very rapidly, and rose again almost as quickly.—*Cassillis* (XIV). Storm of extraordinary severity, with S and R, 1·00 in.—*Callander, Leny* (XVI). Severe gale, with great fall of pressure.—*Keith, H.R.S.* (XVII). About two inches of S fell, causing fearful drifts on the following day.—*Aviemore, H.R.S.* (XVIII). Severe gale from W.; Highland railway blocked by S at night, and the telegraph line much damaged.—*Forsinard, H.R.S.* (XIX). High wind, S and drifts.—*Watten, H.R.S.* (XIX). Tempest of wind, S, sleet and R.—*Tipperary, Henry Street* (XX). Strong gale and R from N.W.—*Castle Lough* (XX). Great storm with heavy R, followed by S.—*Newcastle West* (XX). Gale with H, sleet, T and L.—*Miltown Malbay* (XX). Furious gale commenced at 6 a.m. from S.W., veered to N., and abated at 3 p.m. T, L, H and S.—*Kilconnell* (XXII). Violent storm from S.W., veering to N.W.—*Tuam, Gardenfield* (XXII). Violent storm, pressure remarkably low, many trees being blown down.—*Castlebar* (XXII). Violent storm followed by a fall of S.—*Enniscoe* (XXII). A perfect hurricane.—*Carrick-on-Shannon, Lawderdale* (XXII). Very heavy S.W. gale.—*Enniskillen, Florence Court* (XXIII). A very severe storm, with remarkable fall of pressure; old trees which had stood for 130 years were blown down.—*Newtownards* (XXIII). The most terrific storm since 1839; wind 78 miles an hour.—*Cushendun* (XXIII). Great storm, trees blown down.—*Bushmills* (XXIII). Great storm with S.—*Bellarena* (XXIII). A great hurricane from S.W., W., and N.W., which blew down a great number of old trees.—*Raphoe, Convoy House* (XXIII). Tremendous gale and great damage.—*Killygarvan* (XXIII). Violent W.N.W. gale.—*Buncrana* (XXIII). Gale of unusual force, commencing at 6 p.m., and continuing with unabated force till 3 a.m. on 27th, causing much damage on land and sea.

26th and 27th.—*Wells, Westbury* (V). Very stormy with H, S and T.—*Keswick, Shu-le-crow* (X). Violent gale with very low pressure.—*Douglas, Victoria Road* (XI). Hurricane from 4 p.m. on 26th to 4 a.m. on 27th; the bar. was lowest at 7 p.m. on 26th, after which it rose rapidly.—*Melrose, Abbey Gate* (XII). Hurricane from W., strongest between 2 and 4 a.m. on 27th; many trees uprooted, houses injured, and several tombstones blown down in the Abbey burying ground.—*Innerleithen* (XIII). Great storm; pressure fell more than two inches in 12 hours.—*Dalnaspidal, H.R.S.* (XVI). Terrific gale and S drifts.—*Lerwick, Montfield* (XIX). Great gale

from N.E.—*Buncrana, Rockfort* (XXIII). Severe gale, commencing about 6 p.m., and reaching its greatest intensity about 1 a.m. on 27th, doing much damage to houses, &c.

27th.—*Littlehampton* (II). T, L, and H.—*Addington* (III). Large flood.—*Diss* (IV). Strong gale from S.W. till evening.—*Ashburton, Druid House* (V). Two inches of S and H.—*Chesterfield, Brampton St. Thomas* (VII). Heavy gale.—*Lancaster, South Fields* (VIII). L and H.—*Leeds, Woodhouse Cliff* (IX). Great gale, with extremely low pressure, at 6 p.m.—*Sedbergh, Brig Flatts* (IX). Pressure the lowest ever registered here; exceedingly stormy, thousands of trees blown down.—*Elterwater, Woodlands* (X). Snowball showers, some lumps $1\frac{1}{4}$ inch in girth.—*St. Andrews, Newton Bank* (XVI). Tremendous S.W. gale during night.

27th and 28th.—*Athlone, Twyford* (XXI). Six inches of S in the two days.

28th—*Croydon, Addiscombe* (II). Duration of sunshine, 5h. 30m.—*Granchester Mill* (III). Mill stopped by floods; the only time during the year.—*Warminster* (V). Tremendous gale.—*Port Madoc* (XI). S.W. gale

30th.—*Diss* (IV). Fresh gale from S.S.W.

31st.—*Llandovery* (XI). Heavy floods.—*Newcastle West* (XX). Heavy R, ·11 in. in 6 minutes.

FEBRUARY.

1st.—*Littlehampton* (II). W.S.W. gale.—*Ashdell* (II). H storm.—*Torquay, Babbacombe* (V). Heavy S.W. gale.—*Teignmouth, Woodway* (V). T S at 9 am.—*Ashburton, Druid House* (V). Heavy gale with T and L.—*St. John's* [*Devonport*] (V). S.W. gale with T and H.—*Melton Mowbray, Coston* (VII). Stormy night, heavy R and S.—*Nottingham, Strelley Hall* (VII). Heavy R in the evening; S at night and to 5.30 a.m. on 2nd, total fall ·97 in.—*Esholt Vic.* (IX). Heavy R (1·86 in.) and great flood in this immediate neighbourhood.—*Miltown Malbay* (XX). N.E. storm.

2nd.—*Hartley* (II). Strong gale all day.—*Partney* (VII). Low lands flooded.—*Derby, Elvaston* (VII). N.E. gale. Flood on the river Derwent.

3rd.—*Nottingham, Strelley Hall* (VII). Min. in stand 26·°7; the most severe frost during the winter of 1883-84.—*Melrose, Abbey Gate* (XII). W. gale at night.

8th.—*Ramelton, Killygarvan* (XXIII). S. gale at night.

8th and 9th.—*Miltown Malbay* (XX). Storm S.W. to W. with T L and H.

9th.—*Oundle, Vine Cottage* (III). S.S.E. gale.—*Burwarton* (VI). H storm.—*Shap, Copy Hill* (X). Gale with H S sleet and R 1·51 in.—*Llanwrtyd Wells* (XI). T, L, R, H and S during the night.—*Abergwessin* (XI). Very stormy with H T and R 1·13 in.—*Bushmills* (XXIII). Great gale.

9th and 10th.—*Diss* (IV). Gale from S. with H and S.—*Tipperary. Henry Street* (XX). S.—*Limerick, Kilcornan* (XX). H and S.

9th to 11th.—*Walton-on-the-Hill* (VIII). S.—*Ballinasloe, Kilconnell* (XXII). Gale from S.W., veering to N.W. and again backing to S.W. with S and H on 9th.

10th.—*Dorking, Abinger* (II). Heavy hailstorm and T.—*Teignmouth Woodway* (V). Squalls of wind R and H.—*Maisemore Lock* (VI). High S.W. wind, R, H and S.—*Coston* (VII). Heavy H storm about noon. Melrose (XII). Strong S.W. gale.—*Stronvar* (XVI). Gale with S and sleet.—*Budgate, Cawdor* (XVIII). Very stormy with S and R.—*Dunmanway, Coolkelure* (XX). Heavy S shower.

10th and 11th.—*Galway, Queen's College* (XXII). Hard squalls with heavy H showers.

11th.—*London, Lansdowne Crescent*, W. (I). TS with H at 11·40 a.m.—*Muswell Hill* (I). H storm with very large H stones about noon with L and T.—*Pinner Hill* (I). L T and H.—*Stanmore* (I). T and L with squalls of R and H.—*Debtling* (II). T and heavy H shower.—*Littlehampton* (II). Very rough. T and terrific hailstorm at 1 p.m., cutting the cabbage species to rags.—*St. Lawrence* (II). L T and heavy H at 1 p.m.—*Ashdell* (II). Very heavy H storm with T and L.—*Emsworth, Redlands* (III). Severe TS noon to 1 p.m. Rain storms every hour or so from 7 a.m. to 4 p.m., so violent that objects a few yards away were hidden as by mist, and the force of the wind was so great that the rain was blown laterally over the surface of the earth and was unable to find its way into the gauge.—*Leyton Observatory* (IV). T at noon, very heavy H storm at 0.30 p.m.—*Billericay, Ramsden Bellhouse* (IV). TS.—*Rendlesham Hall* (IV). S.W. gale with T, L, H and R.—*Stowell Rectory* (V). Gale at night.—*Macclesfield* (VIII). Gale.—*Ambleside, Elterwater* (X). Heavy shower of S and R, with T at 5 p.m.—*Castle Malgwyn* (XI). Stormy with S and H, T in morning.—*Melrose, Abbey Gate* (XII). Hills white with S.—*Loch Shiel, Glenaladale* (XVIII). Much S on hills.—*Miltown Malbay* (XX). Gale S.W. to N, L and fearfully high sea.

11th to 13th.—*Enniskerry, Parknasilloge* (XXI). More than 4 in. of R fell in the three days.

12th.—*Shap, Copy Hill* (X). Strong gale all day.—*Castle Malgwyn* (XI). Gale from S.W., backing to S.E., with the heaviest fall of R recorded during 7 years, 2·61 in.—*Dumfries, Crichton Inst.* (XII). Strong S.E. gale and heavy R, 1·15 in.—*Ramelton, Killygarvan* (XXIII). Heavy S gale.

12th and 13th.—*Dingle* (XX). T H and S.

13th.—*Olnafirth* (XIX). S. to S.W. gale.

14.—*Debtling* (II). Fog till noon.—*Littlehampton* (II). A wave of great darkness with a warm sulphurous smell, passed over at 5 p.m. —*Miltown Malbay* (XX). Strong gale from S.E.

15th.—*Diss* (IV). Gale from E.

16th.—*Loch Shiel, Glenaladale* (XVIII). Blew hard from S.E.— *Watten, H.R.S.* (XIX). S.E. gale.—*Cushendun* (XXIII). Very stormy from S.E.

17th.—*Clevelands* [*Lyme Regis*] (V). Heavy local R, 1·72 in.—*Shap, Copy Hill* (X). Strong gale from E.

19th.—*Cockermouth, Higham* (X). S.W. gale.—*Kilkishen* (XX). Heavy R (1·09 in.) causing a considerable rise in the rivers and lakes.

20th.—*Ashburton, Druid House* (V). Hurricane at night from S. —*Maisemore Lock* (VI). S. gale with H.—*Diglis Lock* (VI). S.W. gale and R.—*Mansfield* (VII). Very stormy night with H.—*Shap, Copy Hill* (X). Strong gale all day.—*Castle Malgwyn* (XI). Furious gale for 5 or 6 hours at night, many trees blown down and some houses unroofed.—*Carno, Tybrith* (XI). Gale.—*Llanerchymedd, Llwydiarth Esgob* (XI). Violent gale; 210 trees blown down.—*Ayr, Cassillis House* (XIV). Severe gale.—*Dunmanway, Coolkelure* (XX). Very severe T and L, 3 to 5·30 a.m.—*Newcastle West* (XX). N.W. gale 5 to 7 p.m., S, H, and R, 1·21 in.—*Bushmills* (XXIII). Great gale.—*Ramelton, Killygarvan* (XXIII). Severe S.W. gale and heavy R.

20th and 21st.—*Diss* (IV). Southerly gale.—*Torquay, Babbacombe* (V). Southerly gale.—*Watten, H.R.S.* (XIX). S.E. gale.—*Miltown Malbay* (XX). Gales from S.W. to N.W., with T, L, R, H, S and sleet.

21st.—*Ashburton, Druid House* (V). H, S, R and L.—*Derby, Elvaston* (VII). S. and S.W. gale, L at night.—*Macclesfield* (VIII). Gale in early morning; L at 8 p.m.—*Llanwrtyd Wells* (XI). T and L at night.—*Melrose* (XII). Severe S.W. gale in night and early morn-

ing of 22nd.—*St. Andrews, Newton Bank* (XVI). S.W. gale at night. —*Tralee, Castlemorris* (XX). Heavy fall of S during night.

22nd.—*Addington* (III). Large flood.—*Diss* (IV). H storm in early morning from S.

23rd.—*Pinner Hill* (I). H storm.—*Llanfrechfa* (XI). Very stormy from S.W., with violent gusts.

25th.—*Coston* (VII). H in morning, R storm in afternoon.

27th.—*Croydon, Addiscombe* (II). Dense fog; at 8 a.m., house invisible at 60 yards.

28th.—*Mansfield* (VII). Hard frost and S.

29th.—*Worksop, Hodsock Priory* (VII). Min. temp. 21°·6 the min. for the year.

MARCH.

1st.—*Ross, The Graig* (VI). Solar halo.—*Glasgow, Queen's Park* (XIV). Six inches of S and sleet.—*St. Andrew's, Newton Bank* (XVI). Heavy S storm.—*Stronvar* (XVI). Several inches of S on ground.—*Loch Shiel, Glenaladale* (XVIII). Twelve inches of S on ground.

3rd.—*Cerne Abbas, Minterne Rect.* (V). Heavy R, 2·10 in.—*Ashburton, Druid House* (V). R all day, and in torrents at night, 2·04 in.—*Budleigh Salterton, East Budleigh* (V). R 1·26 in., and exceptionally high flood in River Otter, roads in valley impassable.—*Crewkerne, Bincombe House* (V). Heavy R, 2·05 in., 1·37 in. of which fell in 10 hours.—*Wincanton, Stowell Rect.* (V). Heavy R 1·20 in., followed by floods in many places in the neighbourhood.—*Melton Mowbray, Coston* (VII). S and R all day.—*Nottingham, Strelley Hall* (VII). S 7 to 11 a.m.—*Macclesfield* (VIII). Stormy with S and R.—*Llanfrechfa Grange* (XI). Steady R, 1·80 in., and violent gusts of wind from S.E.—*Stronvar* (XVI). Three inches of S.

4th.—*Darlington, Cleveland Parade* (X). Persistent rain throughout the day, 1·24 in.—*Shap Copy Hill* (X). R, H, sleet, and 6 inches of S. —*Port Madoc* (XI). Heavy storm.

9th.—*Andoversford, Hampen* (VI). Southerly gale with L.—*Macclesfield* (VIII). Gale followed by S.—*Watten, H.R.S.* (XIX). S.E. gale at night.—*Ramelton, Killygarvan* (XXIII). Strong S. gale.

10th.—*Diss* (IV). Gale from S.—*Cookbury Week* (V). T L and H —*Ross, The Graig* (VI). H in afternoon; hills covered with S.—*Abergwessin* (XI). Distant T, S and R.—*St. Andrews, Newton Bank* (XVI). Heavy S.E. gale at night.—*Watten H.R.S.* (XIX). Storm of

wind, R and S.—*Olnafirth* (XIX). Heavy gale from S.—*Miltown Malbay* (XX). T, L, R, H and S.—*Cushendun* (XXIII). S.W. gale at night with S on mountains and R on low lands.

12th.—*Llanfrechfa* (XI). Sharp TS with H and R, 5 to 5.30 p.m.

13th.—*Torquay, Babbacombe* (V). S gale.—*Barnard Castle, Whorlton* (X). Squally at night with T.

13th and 14th.—*Elterwater, Woodlands* (X). Wet on night of 13th and R all 14th ; total 3·45 in.

14th.—*Shap, Copy Hill* (X). Strong gale with R.

16th.—*Nottingham, Strelley Hall* (VII). Max. in stand 66°·1 ; the highest temp. recorded in March during 4 years.

17th.—*Shap, Copy Hill* (X). Strong gale.

18th.—*Melrose, Abbey Gate* (XII). S.W. gale for 12 hours.—*St. Andrew's, Newton Bank* (XVI). Heavy squall of R and H in afternoon from S.W.—*Cushendun* (XXIII). S.W. gale in evening.

19th.—*Carrick-on-Shannon, Lauderdale* (XXII). Strong S.W. gale. —*Ramelton, Killygarvan* (XXIII). Violent S.W. gale.

19th and 20th.—*Miltown Malbay* (XX). Gale W. to N.W.

20th.—*Diss* (IV). Gale from S.W.—*Dumfries, Crichton Inst.* (XII). Strong gale from S.W.—*Melrose, Abbey Gate* (XII). S.W. gale for 12 hours.—*Ayr, Cassillis* (XIV). Severe gale.—*Stronvar* (XVI). Gale.—*Lochbroom* (XVIII). Gale.

21st.—*Acrise* (II). TS in E., at night.—*Diss* (IV). R and H in morning from N.W.

23rd.—*Walton-on-the-Hill* (VIII). Solar halo.

27th.—*Rodmersham* (II). S.

30th.—*Miltown Malbay* (XX). Heavy fall of S H and R.—*Londonderry, Knockan* (XXIII). Heavy fall of S.

31st.—*Torquay, Babbacombe* (V). Southerly gale.

APRIL.*

1st.—*Ross, The Graig* (VI). Very wet boisterous night.

2nd.—*Pinner Hill* (I). TS.—*Croydon, Addiscombe* (II). Duration of sunshine 9 h. 24 m.—*Debtling* (II). T and L at night.—*St. Leonards* (II). TS before midnight.—*Oundle, Vine Cottage* (III).

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* 22nd.—Sharp shock of earthquake ; many details and two maps were given in the *Met. Mag.* for May. A fully illustrated report by Prof. Meldola will shortly be published by the Essex Field Club ; those desiring copies should address Mr. A. Lockyer, Stanley Road, Woodford, Essex.

Vivid L at night.—*Earls Colne, Chalkney House* (IV). Much L in the night.—*Diss* (IV). L in evening.—*Billericay, Ramsden Bellhouse* (IV). T.—*Ross, The Graig* (VI). Warm day, L in N.E.—*Maisemore Lock* (VI). L.—*Melton Mowbray, Coston* (VII). Very brilliant L, frequent flashes to S. and N.W. all the evening, and till after midnight.—*Wakefield, Stanley Vic.* (IX). T and R.—*Harrogate* (IX). TS in the night.—*East Layton* [*Darlington*] (IX). T.—*Shap, Copy Hill* (X). TS.—*Melrose, Abbey Gate* (XII). T and L.—*Ayr, Cassillis* (XIV). TS.—*St. Andrews, Newton Bank* (XVI). T and L.

3rd.—*Great Stanmore* (I). Very heavy storm of L and T with R and H, about 2 a.m.—*Diss* (IV). L in evening.—*Ross, The Graig* (VI). Distant T.—*Cheadle, The Heath House* (VI). T. Very hot.—*Macclesfield Park* (VIII). Distant T.—*Liverpool, Walton-on-the-Hill* (VIII). T and L.—*Meltham, Harewood Lodge* (IX). TS at 5.45 p.m.—*Shap, Copy Hill* (X). T.—*Corwen, Rhug* (XI). Heavy TS.—*Dumfries, Crichton Inst.* (XII). Severe TS.—*Glasgow, Queen's Park* (XIV). TS.—*Bushmills* (XXIII). TS.

4th.—*Emsworth, Redlands* (II). S.E. gale.—*Miltown Malbay* (XX). L.

5th.—*Cheadle, The Heath House* (VI). T L and H.—*Macclesfield Park* (VIII). T and H.—*Lancaster* (VIII). T and L.—*Elterwater, Woodlands* (X). T L and heavy R.—*Shap, Copy Hill* (X). Strong gale all day. T.—*Melrose, Abbey Gate* (XII). L.—*St. Andrews, Newton Bank* (XVI). T and L.—*Lochearnhead, Stronvar* (XVI). T and L at 1 p.m.—*Dalnaspidal H.R.S.* (XVI). T.

6th.—*Acrise* (II). TS for one hour in evening.

9th.—*St. Lawrence* (II). Sea fog. Two swallows seen.

12th.—*Wincanton, Stowell Rect.* (V). TS.

16th.—*Emsworth, Redlands* (II). N.E. gale.—*Shap, Copy Hill* (X). Strong wind and H showers.

17th.—*Diss* (IV). H showers at intervals.—*Torquay, Babbacombe* (V). E.N.E. gale; Solar halo.

18th.—*Torquay, Babbacombe* (V). E.N.E. gale.—*Shipley, Esholt* (IX). S.—*Miltown Malbay* (XX). Sharp frost. Ice.

20th.—*Nottingham, Strelley Hall* (VII). H storms in afternoon.

23rd.—*Croydon, Addiscombe* (II). Min. temp. 25°·9; colder than any before recorded in April.—*Winslow, Addington* (III). Sharp frost doing great damage to fruit crop.—*Bedford, Milton Ernest* (III). Temp. fell to 22°, injuring fruit blossom.—*Morpeth, Bothalhaugh* (X). Sharp frost.—*Miltown Malbay* (XX). L.

24th.—*Acrise* (II). S and H.—*Rodmersham* (II). H S and L.—

Ingleby Vicarage (IX). Ice ¼ inch thick.—*East Layton* [*Darlington*]. (IX). Severe frost damaging fruit blossom.—*Lerwick, Montfield* (XIX). Extensive display of aurora.

26th.—*Rodmersham* (II). Sharp frost severely nipped the hops.—*Tipperary, Henry Street.* (XX). S.

27th.—*Shap, Copy Hill* (X). Strong gale all day.—*Nenagh, Castle Lough* (XX). T.—*Newcastle West* (XX). Great TS with H and R.

28th.—*Wem, Sansaw Hall* (VI). T.—*Cheadle, The Heath House* (VI). T L and H.—*Mansfield* (VII). T and H.—*Worksop, Hodsock Priory* (VII). Heavy hailstorm with T at 1 p.m.—*Macclesfield Park* (VIII). Distant T.—*Liverpool, Walton-on-the-Hill* (VIII). T.—*Ingleby Vic.* (IX). House martens observed.

29th.—*Diss* (IV). Hail and T and L to W. in evening.—*Shap, Copy Hill* (X). T.—*Loch Shiel, Glenaladale* (XVIII). S on hill tops.

30th.—*St. Laurence* (II). Lilac and laburnum in bloom.—*Wem, Sansaw Hall* (VI). Sharp hail shower—large stones—size of marbles. *St. Andrews, Newton Bank* (XVI). Blowing hard from S. W.—*Miltown Malbay* (XX). Very strong N.W. gale.

MAY.

1st.—*Girvan, Pinmore* (XIV). T and L, and S showers.—*Loch Shiel, Glenaladale* (XVIII). Wind N., very cold and stormy; heavy R, H, S and sleet (1·13 in.), T and L; S lying on hill tops.—*Miltown Malbay* (XX). N.W. gale with H.—*Belfast, New Barnsley* (XXIII), Stormy from S., with H and R.

2nd.—*St. Leonards* (II). Moderate S.W. gale.—*Cookbury Week* (V). W.S.W. gale with heavy showers.—*Elterwater, Woodlands* (X). Windy with showers of R, H and sleet.—*Llanwrtyd Wells* (XI). Strong wind, R all day, 1·05 in.—*Melrose, Abbey Gate* (XII). Eildon Hills white with S.—*St. Andrews, Newton Bank* (XVI). Heavy W. gale.—*Watten, H.R.S.* (XIX). Stormy from W., with R and H.

3rd.—*Melrose, Abbey Gate* (XII). Ground white with S.—*Glasgow, Queen's Park* (XIV). T and H.—*Loch Shiel, Glenaladale* (XVIII). Very cold heavy showers of sleet, R and H; S lying far down on hills.

4th.—*Alton, Ashdell* (II). T and L.—*Northampton, Sedgebrooke* (III). Heavy storms of H with T and L.—*Derby, Elvaston* (VII). Strong S.W. gale.—*Walton-on-the-Hill* (VIII). T and L about midnight.—*North Esk Reservoir* (XIII). T and L.—*Dalnaspidal, H.R.S* (XVI). T and S.—*Ramelton, Killygarvan* (XXIII). T, L, H and strong wind.

5th.—*London, Lansdowne Crescent, W.* (I). TS with R and H at 1.45 p.m.—*Pinner Hill* (I). TS.—*Croydon, Addiscombe* (II). H 3-8ths in. in diameter at 9 30 a.m.; TS during afternoon.—*Eastwell* (II). T.—*Reculver* (II). TS.—*Emsworth, Redlands* (II). T and L.—*Oxford, Magdalen College* (III). T, L and H.—*Leyton Observatory* (IV). Heavy TS from 2 to 4 p.m.—*Calne, Compton Bassett* (V). TS with H.—*Wincanton, Stowell Rect.* (V). TS with H and R, L very vivid.—*Maisemore Lock* (VI). T with R and H.—*Cheltenham* (VI). TS with H and R.—*Ingleby Vic.* (IX). T, H, and heavy R.—*Llanfrechfa Grange* (XI). T and L at 11 a.m.—*Balquhidder, Stronvar* (XVI). Heavy H shower.

5th and 6th.—*Billericay, Ramsden Bellhouse* (IV). TSS.

6th.—*Acrise* (II). TS.—*Cranbrook, Hartley* (II). T at 6.30 p.m.—*Diss* (IV). Heavy TS at 1 p.m.—*Torquay, Babbacombe* (V). TS.

8th.—*Elterwater, Woodlands* (X). Raining all day and night, 2·15 in.

9th.—*St. Andrews, Newton Bank* (XVI). Stormy night, T.

10th—*Croydon, Addiscombe* (II). Duration of sunshine 12 hours 55 min.

11th.—*Addiscombe* (II). Relative humidity at 3 p.m., 33.—*Nottingham, Strelley Hall* (VII). Duration of sunshine, 13·4 hours, being 87 per cent of the possible duration.—*Elterwater, Woodlands* (X). L.

12th.—*Kensington, Campden Hill Res.* (I). ·89 in. of R fell in about 20 minutes.—*Notting Hill, Lansdowne Crescent* (I). TS in afternoon, with heavy R and very large H stones; ·63 in. fell in 18 minutes.—*Muswell Hill* (I). Heavy TS between 4 and 6 p.m., with ·31 in. of R.—*Rodmersham* (II). T and L.—*Reculver* (II). TS.—*Littlehampton* (II). T and R.—*St. Leonards* (II). TS at night.—*St. Laurence* (II). L and T.—*Welwyn, Datchworth Rect.* (III). ·40 in. of H in 20 min.—*Winslow, Addington* (III). Sharp TS.—*Oxford, Magdalen Coll.* (III). T, L, H, and R.—*Northampton, Sedgebrooke* (III). Heavy R about 6 p.m., with much L and T.—*Oundle* (III). Heavy TS.—*Billericay, Ramsden Bellhouse* (IV). TS.—*Torquay, Babbacombe* (V). T and L.—*Ketton Hall* [*Stamford*] (VII). TS with heavy R.—*Melrose, Abbey Gate* (XII). T and L at 8 p.m.—*Newcastle West* (XX). S.W. gale.

13th.—*St. Leonards* (II). L at night.—*Sandy, The Lodge* (III). TS.—*Miltown Malbay* (XX). Gale from S.W., veering to N.W.—*Ramelton, Killygarvan* (XXIII). Strong gale from S.S.E.

14th.—*Cookbury Week* (V). N.W. gale.

15th.—*Emsworth, Redlands* (II). S.W. gale and R.

17th.—*Littlehampton* (II). Hot, with T and R.—*St. Leonards* (II). L at night.—*Shap, Copy Hill* (X). Strong gale all day.—*Loch Shiel,*

Glenaladale (XVIII). Very stormy, with 1·32 in. of R; S on hill tops.—*Miltown Malbay* (XX). S.W. gale with H.—*Carrick-on-Shannon, Lawderdale* (XXII). S.W. gale.

18th.—*Ingleby Vic.* (IX). At 9 p.m. the W. horizon was coloured, as in January, but more faintly. Almost half the visible heaven was more or less suffused with light: smoky red next the horizon, then yellowish green, then blue green, gradually fading into the blue of the heavens.

19th.—*Worcester, Diglis Lock* (VI). TS.—*Nottingham, Strelley Hall* (VII). TS from 6 to 7 p.m.—*Melrose, Abbey Gate* (XII). T, L, and R. —*North Esk Res.* (XIII). T.—*Newcastle West* (XX). Frost.—*Seaforde* (XXIII). Very severe H storm for 20 minutes from 0·45 a.m.; it yielded ·28 in.; some of the H was as large as marbles, cutting and damaging foliage, &c.—*Belfast, New Barnsley* (XXIII). T, H, and R; stormy.

21st.—*Littlehampton* (II). Frost.

24th.—*St. Lawrence* (II). Heavy R, distant L.—*St. Leonards* (II). L at night.—*Torquay, Babbacombe* (V). Solar halo.—*Macclesfield Park* (VIII). Gale after sunset; L.—*Shap, Copy Hill* (X). N.E. gale.—*Llanfrechfa Grange* (XI). Heavy R, T, and L at night.—*Lower Solva* (XI). Heavy TS.

27th.—*Littlehampton* (II). Frost.

31st.—*Ross, The Graig* (VI). Hoar frost.—*Hampen* (VI). White frost.

JUNE.

1st.—*Winslow, Addington* (III). Slight frost.—*Miltown Malbay* (XX). Heavy N.W. gale, with frost at night.

5th.—*Camden Road* (I). One inch of R fell in four hours after 2.15 p.m.—*Muswell Hill* (I). 1·93 in. of R, the heaviest fall of the year.—*Finchley, East End* (I). Hailstones an inch and a half long; the heaviest fall of the year 1·73 in.—*Enfield Chase* (I). TS and heavy R, 1·78in.—*Croydon, Addiscombe* (II). Heaviest fall of R in any day in June for 6 years, 1·01 in. TS 2.35 to 4.40 p.m, very heavy downpour at times.—*Littlehampton* (II). T.—*Longton, The Meir* (VI). 1·02 in. of R fell in 6 hours.—*Melton Mowbray, Coston* (VII). T with vivid L at 5 p.m.

6th.—*Dorking, Abinger Hall* (II). H about noon.—*St. Lawrence* (II). Heavy R at night 1·04 in.—*Weybread Vic.* [*Harleston*] (IV). A

waterspout seen.—*Pewsey* (V.) T and heavy R, 1·30 in.—*Wincanton, Stowell Rect.* (V). R 1·69 in., the heaviest fall since October, 1882.—*Gloucester, Maisemore Lock* (VI). T H and R.—*Partney* (VII). T and heavy R, 1·18 in.

7th.—*Winslow, Addington* (III). TS.—*Northampton, Sedgebrooke* (III). T L and heavy R about noon.—*Calne, Compton Bassett*(V). T and L.—*Wincanton, Stowell Rect* (V). TS with H.—*Ross, The Graig* (VI). Heavy TS.—*Hampen* (VI). TS.—*Cheltenham* TS.—*Runcorn, Weston Point* (VIII). Rainfall 1·75 in.—*Liverpool, Walton-on-the-Hill* (VIII). T, L, and heavy R, 1·00 in.—*North Esk Reservoir* (XIII). Much T.

8th.—*Dorking, Abinger Hall* (II). T.—*Littlehampton* (II). T L and R.—*St. Lawrence* (II). L, T and R.—*Wincanton, Stowell Rect.* (V). TS.

13th.—*Redditch* (VI). Remarkably heavy R with a little H and T. ·77 in. fell in 12 minutes.

22nd.—*Billericay, Ramsden Bellhouse* (IV). TS.

25th.—*Nottingham, Strelley Hall* (VII). Duration of sunshine 13·5 hours; the max. recorded duration in any one day during the year.

28th.—*Redhill, Thornielee* (II). ·22 in. of R fell in 30 minutes.—*Littlehampton* (II). T L and R.—*Salisbury, Alderbury* (V). Heavy TS from 2 to 4 a.m.—*Warminster* (V). TS from 10 p.m. on 28th to 9 a.m. on 29th with 1·13 in. of R.—*Pewsey* (V). T and heavy R, 1·13 in.—*Calne, Compton Bassett* (V). T and L with heavy R at 0.30 a.m., ·92 in.—*Beaminster* (V). TS 11 p.m. to 1 a.m. of 29th, with 1·14 in. of R.—*Torquay, Babbacombe* (V). TS.—*Ashburton, Druid House.* (V). TS.—*Bradninch Vic.* (V). Heavy R 7 a.m. to 2 p.m., 1·47 in.—*Wincanton, Stowell Rect.* (V). TS from 10 p.m. to midnight with 1·42 in. of R.—*Fairford, Kempsford* (VI). Heavy TS with 1·55 in. of R.—*Hampen* (VI). Heavy TS, 1·81 in. of R.—*Gloucester, Maisemore Lock* (VI). T and heavy R, 1·10in.—*Trecastle, Llywell Vic.* (XI). TS and 1·05 in. of R.—*Douglas, Victoria Road* (XI). Heavy TS 8 to 11 p.m.—*Llanwrtyd Wells* (XI). TS and heavy R.

28th and 29th.—*Teignmouth, Woodway* (V). TSS with H and heavy R.—*Clifton* (VI). From 10.30 p.m. on the 28th, to 9 a.m. on the 29th, 2·44 in. fell.—*Cheltenham* (VI). Violent TSS and heavy R, 1·73 in. in the two days; 1·62 in. fell in about 4½ hours on 29th.—*Hereford, Burghill* (VI). 1·33 in. of R in 11 hours.—*Ludlow, Ashford* (VI). In about 21 hours, from 4.30 p.m. on the 28th to shortly before 2 p.m. on the 29th, 1·94 in. of R fell.—*Llandovery* (XI). T and L and 2·14 in. of R in the two days.—*Abergwessin* (XI). T.

29th.—*Dorking, Abinger Hall* (II). TS about 6 a.m.—*St. Lawrence*

(II). L T and R.—*Faringdon, The Elms* (II). TS and heavy R, 1·82 in.—*Winslow, Addington* (III). TS.—*Henley-on-Thames, Assenton* (III). TS from 6.20 a.m. to 8.30 a.m.—*Oxford, Magdalen College* (III). TS.—*Sandy* (III). TS.—*Crewkerne, Bincombe House* (V). TS. ·70 in. of R fell in half an hour.—*Bath, Queen's Parade* (V). Severe TS.—*Chipping Sodbury, Frampton Cotterell* (VI). 1·76 in. of R fell in about 3 hours in the early morning.—*Fairford, Hatherop Rectory* (VI). Between 0 a.m. and 9 a.m. 2·01 in. of R fell.—*Northleach, Hampnett Rect.* (VI). In less than 5 hours, between 2 and 7 a.m., 1·82 in. of R fell.—*Ross, The Graig* (VI). In about 17 hours, from 1.20 a.m., 2·40 in. of R fell; the heaviest fall recorded in June. TS in afternoon.—*Great Malvern, Madresfield* (VI). 1·89 of R fell in the early morning.—*Llanfrechfa Grange* (XI). Heavy T and L at 0.30 a.m. and heavy R, 1·08 in.

29th and 30th.—*Taunton, Willett House* (V). 2·62 in. of R fell in 48 hours.

JULY.*

3rd.—*Croydon, Addiscombe* (II). Relative humidity at 3 p.m., 33; the lowest recorded in July for 8 years.—*Calne, Compton Bassett* (V). TS and R.—*Wincanton, Stowell Rect.* (V). TS.—*Ross, The Graig* (VI). TS.

4th.—*Dymchurch* (II). TS at night.—*Whitstable* (II). TS.—*Winslow, Addington* (III). Sharp TS at 1.30 p.m.; some trees in the neighbourhood struck by L.—*Northampton, Sedgebrooke* (III). A heavy storm of T and L with heavy H about 1 p.m.—*Oundle* (III). Heavy TS and ·33 in. of R in 45 minutes—*Huntingdon, Alconbury* (III). 1·90 in. of R fell in 45 minutes.—*Nottingham, Strelley Hall* (VII). TS from 3.40 to 4.20 p.m.—*Derby, Elvaston* (VII). Great heat; heavy TS. —*Wold Newton* (IX). ·98 in. of R fell in 75 minutes.—*Scarborough* (IX). TS.—*Haltwhistle, Unthank Hall* (X). 2·01 in. of R fell in 6 hours, doing much damage.—*Shap, Copy Hill* (X). Awful storm of T and L. —*Ayr, Cassillis* (XIV). Severe TS from 1 to 2 p.m., and again at 10 p.m. with heavy R, 1·15 in.—*Moidart, Roshven* (XVIII). The worst TS experienced here for many years; one man killed by L.—*Glasgow,*

* The remarkably severe thunderstorms of this and the following month were reported upon very fully in the *Met. Mag.* for the months of August, September, October and November, and analyses of the damage done were appended. We give here merely additional facts not then known to us.

Queen's Park (XIV). Heavy TS.—*Loch Shiel, Glenaladale* (XVIII). Violent TS in afternoon.—*Budgate, Cawdor* (XVIII). TS.

[The above entry from Northampton is corroborated by the following newspaper cutting :—"*Guilsborough* (9½ miles N.E. of Daventry). Glass was broken at the Grange by hailstones quite as large as marbles. At *West Haddon* (7 miles N.E. of Daventry), pieces of ragged ice of unusual size fell as hail. At *Staverton* (2 miles S.W. of Daventry), the hailstones resembled, in size and appearance, pieces of lump sugar broken for the table"].

4th and 5th.—*Peterborough, Springfield House* (III). TSS.—*Barnard Castle, Whorlton* (X). T, L and R.

4th to 8th.—*North Esk Reservoir* (XIII), T and L daily.

5th.—*Rodmersham* (II). T and L.—*St. Leonards* (II). TS.—*Rendlesham Hall* (IV). TSS.—*Diss* (IV). TS.—*Lynn, Hillington* (IV). ·95 in. of R, the greater part of which fell in about 20 minutes.—*Wincanton, Stowell Rect.* (V). TS.—*N. Level Engine* [*Thorne, Doncaster*] (VII). TS.—*Skipton, Craven Herald Office* (IX). 2·02 in. of R, the heaviest fall recorded during 3 years.—*Kilkishen* (XX). T, L and R, ·80 in. fell in 1 hour.—*Rameltón, Killygarran* (XXIII). Heavy R, 1·06 in. fell in 1 hour, 3 to 4 p.m.

[*Skipton.*—"The streets were flooded like rivers, and were in some cases impassable, the water being several feet deep. Shops and mills had to be closed owing to the influx of water."—*Newspaper cutting.*]

5th and 6th.—*Sandy, The Lodge* (III). TSS.—*Liverpool, Walton-on-the-Hill* (VIII). TSS with heavy R.

6th.—*Pinner Hill* (I). TS.—*Rickmansworth* (III). Very severe TS; many trees struck; ·85 in. of R fell in half an hour.—*Ross, The Graig* (VI). TS.—*Chester, Abbots Hayes* (VIII). Heavy TS with 1·72 in. of R.—*Macclesfield Park* (VIII). TS with H.—*Southport, Hesketh Park* (VIII). Very heavy local R, 1·72 in.—*Barnard Castle, Whorlton* (X). Violent TS with H and R; 2·01 in. fell between noon and 1 p.m.—*Melrose, Abbey Gate* (XII). T, L and heavy R, 1·01 in.—*Forres, H.R.S.* (XVII). TS with heavy R.

8th.—*Emsworth, Redlands* (II). TS.—*Melton Mowbray, Coston* (VII). Severe TS with torrents of R, 1·21 in.—*N. Level Engine*, [*Thorne, Doncaster*] (VII). TS.—*Nottingham, Strelley Hall* (VII). T from 3.30 p.m, TS from 5 to 6 p.m.—*Liverpool, Walton-on-the-Hill* (VIII). T and L.—*Meltham, Harewood Lodge* (IX). TS with ·35 in. of R in 35 minutes.—*St. Andrews, Newton Bank* (XVI). T and L and ·35 in. of R in 25 minutes.

8th and 9th.—*Derby, Elvaston* (VII). Heavy R and TSS.—*Macclesfield Park* (VIII). TSS.—*Lancaster, South Field* (VIII). Heavy R, 2·90 in. in the two days, with T and L on the latter date. *Scarborough* (IX). TSS.

9th.—*Dymchurch.* (II). TS in evening.—*Haileybury College* (III). ·55 in. of R fell in 23 minutes.—*Hitchen* (III). Tropical R storm, nearly 2 in. fell in an hour.—*Buntingford, Throcking Rect.* (III). Very heavy TS at 2 p.m., and it came up again about 4 p.m. The storm was accompanied by a sudden strong wind. The rainfall was 1·60 in., the heaviest fall since August 2, 1879.—*Northampton, Sedgebrooke* (III). Heavy H with T and L at 2 p.m.; several heavy storms in the afternoon.—*Oundle* (III). Heavy TS.—*Tempsford Hall* III). Severe TS. 13 beasts were struck by one flash of L, and 12 were killed outright.—*Thrumpton Hall* (VII). TS. ·70 in. of R fell in 15 min. *Nottingham, Strelley Hall* (VII). TS all the afternoon.—*Worksop, Hodsock Priory* (VII). Very heavy TS in the afternoon. R began at 3 p.m. and by 4.20 p.m. 1·34 in. had fallen; as there were several lulls, the greater part doubtless fell in a much shorter time; the storm returned about 5 p.m., and lasted for another hour, the total fall being 2·04 in., which is the largest yet recorded here in 24 hours.—*Lancaster, South Field* (VIII). T and L, and from 9 a.m. to 7 p.m. 1·80 in. of R.—*Tickhill, Sandbeck Park* (IX). Very heavy T showers commenced about 4.40 p.m. and in 2 hours 2 inches of R fell, the whole fall, 2·45 in., coming down in less than 3 hours.—*Meltham, Harewood Lodge.* IX), TS 4 p.m. to 6 p.m.—*Wakefield, Stanley Vic.* (IX). A violent TS, with 1·17 in. of R.—*Harrogate* (IX). TS.—*Elterwater, Woodlands* (X). T and heavy R, 1·20 in.

9th and 10th.—*Welwyn, Datchworth Rect.* (III). 2·15 in. of R.—*Sandy, The Lodge* (III). TSS.

[*Baldock.*— "At Baldock the rain flooded the streets and lanes with rushing streams. For some time White Horse Street was one sheet of water, and quite impassable to pedestrians. The lower rooms of one house in this street were flooded, and a hole was sawn in the floor to get rid of the water. The low-lying houses in Norton-street were also flooded."—*Newspaper cutting.*]

[*Lancaster.*—"At Lancaster, at the top of East-road, adjoining the workhouse grounds, a considerable portion of a wall was washed down by the pressure of water at the back; and stones were hurled with great force a long distance down the road."—*Newspaper cutting.*]

9th and 10th.—*Leeds, Woodhouse Cliff* (IX). A terrific TS with fatal accidents, and 2·63 in. of R in 48 hours.

10th.—*Camden Road* (I). A tremendously heavy downpour of R, ·60 in. to ·65 in. falling in 15 minutes at 8.45 a.m.—*Dymchurch* (II). TSS in morning and evening.—*Harrogate* (IX). TS.—*East Layton* (IX). TS with heavy R, 1·66 in.—*Richmond, Forcett Park* (IX). The heaviest rainfall during 7 years, 1·60 in.—*Haltwhistle, Unthank Hall* (X). 2·10 in. of R, the second fall in the month exceeding two inches.—*Barnard Castle, Whorlton* (X). T and heavy R, 1·59 in.

11th.—*Henley-on-Thames, Assenton* (III). Heavy R, ·74 in. in half an hour.—*Castle Malgwyn* (XI). Severe TS. L struck and shivered a tree.—*Craigton* (XVI). Heavy R, 1·72 in.

12th.—*Dymchurch* (II). TS in evening.—*St. Leonard's* (II). TSS.

12th and 13th.—*Macclesfield Park* (VIII). TSS.

13th.—*Dymchurch* (II). TS at midnight.—*Debtling* (II). TS.—*N. Level Engine* [*Thorne, Doncaster*] (VII). Violent TS from 4 to 4.30 p.m.; a large stone was dislodged from the top of the engine chimney.—*Mansfield* (VII). Very heavy TS with ·69 in. of R in half an hour.—*Derby, Elvaston* (VII). Violent TS in afternoon.—*Southport, Hesketh Park* (VIII). Very heavy local R, 2·01 in.—*Broughton-in-Furness* (VIII). TS with heavy R, 1·75 in., 3.30 p.m to 4.30 p.m.—*Cartmel, Broughton Hall* (VIII). TS, 1·50 in. of R fell in 85 minutes between 4.5 and 5.30 p.m.—*Harrogate* (IX). TS.—*Thirsk, Baldersby* (IX). Severe TS at 2 p.m. with H and heavy R, 1·24 in.—*Paxton* [*Coldstream*] (X). TS with ·50 in. of R in less than half an hour.—*Shap, Copy Hill* (X). Severe TS at 5.35 p.m. with heavy R and shower of irregular shaped pieces of ice, the yield in 35 minutes being ·76 in., and the fall for the day 1·31 in.—*Melrose, Abbey Gate* (XII). Severe TSS.

14th.—*Diss* (IV). Gale at mid-day.—*St. Andrew's, Newton Bank* (XVI). T and L and ·07 in. of R in four minutes.

15th.—*Shap, Copy Hill* (X). Strong S.W. gale at night, continuing next morning and doing much damage to fruit crops.

16th.—*St. Andrews, Newton Bank* (XVI). Blowing hard from S.W., T and L.—*Craigton* (XVI). 1·44 in. of R.

19th.—*Whitstable* (II). TS.—*Rendlesham Hall* (IV). TS.—*Diss* (IV). TS.—*Olnafirth* (XIX). A wintry day with slight S.

19th and 20th.—*Herne Bay* (II). TSS.

20th.—*Reculver* (II). T. Very heavy H, remaining on the ground for 6 hours.—*Melrose, Abbey Gate* (XII). Temp. fell to 28°.

21st.—*Dymchurch* (II). TS at 6 p.m.—*Debtling* (II). Stormy, with heavy R.

23rd.—*Ashburton, Druid House* (V). River Dart in flood.

24th.—*London, Lansdowne Crescent W.* (I). TS and R 9 to 11 a.m.—*Stanmore* (I). L and T.—*Tonbridge* (II). T and H from S.W.—*Winslow, Addington* (III). TS with heavy R and large H stones.—*Northampton, Sedgebrooke* (III). Heavy TSS and R.—*Oundle* (III). T, H and R.—*Leyton Observatory* (IV). TS at 11 a.m.—*Diss* (IV). TS in afternoon.—*Calne, Compton Bassett* (V). T, L and H.—*Ross, The Graig* (VI). TS.—*Derby, Elvaston* (VII). Heavy showers with H, T and L.—*Scarborough* (IX). TS with H.—*Melrose, Abbey Gate* (XII). T, L and R.—*St. Andrews, Newton Bank* (XVI). A heavy TS, H fell heavily, the stones being as large as beans, glass was broken, and the streets were white like winter; torrents of R fell subsequently.

24th and 25th.—*Whitstable* (II). TSS.—*St. Leonards* (II). TSS with heavy R and H on the latter day.—*Cheltenham* (VI). TSS.—*Macclesfield Park* (VIII). TSS.

25th.—*Wincanton, Stowell Rectory* (V). TS 11.30 to noon.

26th.—*Croydon, Addiscombe* (II). Min. temp. on grass 33°·7, the coldest recorded in July.

27th.—*Croydon, Addiscombe* (II). TS from noon to 0.45 p.m.; R very heavy at times.—*Wallington* (II). T, L and heavy R.—*Reculver* (II). Very heavy R with T, ·70 in. fell between 11.45 a.m. and noon. *Ross, The Graig* (VI). Heavy R 2.50 to 2.57 p.m., rate of fall two inches an hour.—*Willey Rectory* [*Lutterworth*] (VI). 1·30 in. of R fell between 9.45 a.m. and 11 a.m.—*Melton Mowbray, Coston* (VII). Severe storm with T and L.

31st.—*Douglas, Victoria Road* (XI). Dense fog to seaward from 4 p.m., lasting all night.

AUGUST.

5th.—*Nottingham, Strelley Hall* (VII). Very remarkable lunar corona at 9 p.m.

8th.—*Dalnaspidal, H.R.S.* (XVI). T and R.—*Loch Shiel, Glenaladale* (XVIII). TS.

9th.—*Dorking, Abinger* (II). TS.—*Alton, Ashdell* (II). TS.—*Buntingford, Throcking Rectory* (III). A heavy TS broke suddenly overhead at 9 p.m. The rectory of Aspenden was struck. The storm lasted one hour during which time ·80 in. of R fell.—*Winslow, Addington* (III). TS; one man killed and another injured.—*Longton, The Meir.* (VI). 1·63 in. of R fell in 2½ hours.—*Melton Mowbray, Coston*

(VII). TSS with heavy R.—*N. Level Engine, [Thorne, Doncaster]* (VII). TS.—*Cropwell Bishop, Cropwell Grove* (VII). Rain began at 3·30 p.m., with L and T, and in 4 hours 1·57 in. fell.—*Nottingham, Strelley Hall* (VII). T and L from 2.30 to 7 p.m. TSS on all sides; but only ·13 in of R fell here.—*Worksop, Hodsock Priory* (VII). TS. —*Derby, Elvaston* (VII). Short but very violent TS at 6 p.m.— *Derby, Duffield* (VII). About 4 p.m. in less than half an hour 1·75 in. of R fell. Large hail stones, some about the size of a pigeon's egg, fell during the storm.—*Milford* (VII). In 35 min. 1·30 in. of R fell. —*Macclesfield Park* (VIII). T and H.—*Mottram, or Mottram, Hill End* (VIII). 1·75 in. of R fell, and a stone wall was pitted by hail as if by shot.—*Wath-upon-Dearne, Chapel St.* (IX). Severe TS, Saddle-room struck at 6 p.m.—*Meltham, Harewood Lodge* (IX). Heavy TS from 5 p.m. to 7 p.m.—*Doncaster, Hatfield* (IX). TS with 1·29 in. of R in 45 min.—*Driffield* (IX). 1·72 in. of R fell in about half-an-hour. Hailstones were of unusual size.—*Shap, Copy Hill* (X). Severe TS; a cow killed by L at Kemp Howe—*Melrose, Abbey Gate* (XII). TSS.

HAILSTORM AND FLOOD IN N.W. DERBYSHIRE AND S.E. LANCASHIRE.

At Charlesworth, and Chisworth, two villages between Glossop and Marple, R and H fell literally in torrents. After the storm had continued for about half-an-hour, water streamed down the hillsides in vast sheets, washing down walls, and ploughing up the roads to such an extent that locomotion was next to impossible. Stones of immense size were hurled from their places, and lodged in the ruts made by the water, and here and there, sand and rubble blocked the way. The road leading from Moorside Farm was in this way practically destroyed. At Simmondley the water flooded the houses to the depth of several feet. A party caught in the storm took shelter under a wall, but the water rose so quickly that they mounted the wall, but only to be removed as the force of the water washed away the foundation and brought down a portion of the wall.

Much damage was done at Mr. Brown's bleach works at Armhill. It is estimated that it will take about £100 to cover the damages. At Chisworth damage estimated at about £500, was done by the water gaining access to Mr. James Rowbottom's mill, at Hole House. The Kinder Lee Mills also sustained injury. The gardens of Mr. Thomas Booth, which had been presenting a most charming appearance, were in one half hour changed to a complete ruin. Hundreds

of valuable plants were swept away or buried. The sewers on the roads had speedily become choked by the flood, and all efforts were unavailing to release the rapidly accumulating water, or dam up the narrow entrance to the premises. Soon the water burst through the temporary barrier, and an impetuous torrent a yard deep, rushed down the gulley with a loud roar, sweeping all before it in its headlong course to the narrow gorge leading to the Etherow.

At Chew the water rushed down the highway from the direction of Alma Pit, where it washed away a large quantity of coal, and completely tore up the road and a portion of the footpath. Mr. Rowbottom's property stands in a hollow near the roadside, consequently the whole weight of the water swept with terrific force against it. In front of the houses and near the mill a pond stands, and after the water had forced down a wall which adjoins the main-road fence, a considerable portion of it emptied itself into the reservoir, but for which, the consequences might have been serious. As it was, the road leading to the houses was torn up to a depth of two or three feet, and several cartloads of sand and stones were washed in front of the buildings, which were considerably flooded. All along the road from Alma Pit to the boundary of Chisworth, portions of the macadamized road were cut up, and near Boar's Clough about four feet of the wall on the roadside was washed down, a broad chasm some 10 or 12 feet deep cut in the field below, and a large quantity of wreckage strewn about the field. Considerable damage was done throughout the district.

"The river Irwell rose several feet in 20 minutes.—The storm raged with great fury over Newchurch, Waterfoot, and Cowpe, and for a quarter of an hour there was a rain of ice—not hailstones, incredible as it may appear, unless hailstones can be described as fragments of ice globular, conical, and square, varying from three inches long to an inch in thickness. These large pieces were not exceptional but general, and their destructive effects were to be seen in damage caused to property over an area of two miles. Rows of houses, schools, churches, and mills, appeared as if they had suffered from a riot, wherein the rioters had wreaked their violence on the windows, many of which had every square broken. An idea of the extensive nature of the damage done to windows may be formed when it is stated that there were 186 squares of glass broken in the Catholic School at Newchurch. At St. Nicholas Church the windows facing the south were all riddled as if with shot, and only the stained

glass windows protected with wire fencing remained intact. Nearly all the houses in this district had their windows broken, in one house there being no fewer than 76 panes. Greenhouses, and hot-houses, also suffered severely, and gardens were broken up and despoiled. Furrows were ploughed in the roadways several feet deep, and mills and cellars were flooded. The damage sustained by shopkeepers and cottage property owners must amount to several hundred pounds. But by far the most serious damage was sustained in the Cowpe valley, which is about a mile and a half in extent. A small rivulet which empties itself into the Irwell has its rise in the Craggs—the name given to the extensive stone quarries worked by Mr. Thomas Brooks, High Sheriff of the County Palatine. Numerous dye works and carpet printing works are erected in the valley on the margin of the stream. The bank of the water-lodges connected with these works overflowed, and wrought terrible havoc, flooding the lower rooms and damaging a great amount of material. At one of these works alone, the damage is estimated at over £2,000. A stone bridge spanning the stream was swept away, and the main roadway leading to Cowpe washed up, about 15 tons of pavement having been carried to the bottom of the road. The damage cannot be estimated, but it must be many thousand pounds."

10th.—*Eckhurst* (II). The worst TS remembered ; L struck a trellis 12 ft. from the rain-gauge killing shrubs and plants round ; a horse killed and corn in shocks half a mile off, set on fire.—*Sandy, The Lodge* (III). TS.—*Torquay, Babbacombe* (V). TS.—*Wincanton, Stowell Rect.* (V). T and L.—*Liverpool, Walton-on-the Hill* (VIII). T and L.—*Lancaster, Southfield* (VIII). T and L.—*Llanerchymedd, Llydiarth Esgob* (XI). Animals killed by L.—*Forsinard, H.R.S.* (XIX). T, L and heavy R at night.—*Watten, H.R.S.* (XIX). T and L in evening.—*Ramelton, Killygarvan* (XXIII). TS and heavy R.

10th and 11th.—*Cheltenham* (VI). TSS.—*Ross, The Graig* (VI). T and L.

11th.—*Hornastle, Bucknall* (VII). The hottest day since July 5th, 1881.—*Lancaster, Southfield* (VIII). T and L.—*Scarborough* (IX). Heavy TS for 2 hours.—*Melrose, Abbey Gate* (XII). T L and R.—*Seaforde* (XXIII). TS.

12th.—*Great Stanmore* (I). Heavy TS between 3.40 a.m. and 4.30 a.m.—*Whitstable* (II). TS 2 to 3 p.m.—*Alton, Ashdell* (II). T and L. *Leyton Observatory* (IV). —Heavy TS in early morning.—*Yarmouth, Dene Side* (IV). 1·73 in. fell in 1½ hours.—*Dumfries, Crichton Inst.* (XII).

Severe TS.—*Melrose, Abbey Gate* (XII). Very severe TS, ·48 in. of R fell in 25 minutes.—*Girvan, Pinmore* (XIV). Very severe TS from 8 to 10 a.m.—*Ayr, Cassillis* (XIV). Fearful TS.—*Ardrossan, Kirkhall* (XIV). 1·48 in. of R fell in about 4 hours.—*Glasgow, Queen's Park* (XIV). Great TS with R and H, 1·55 in.—*Kippen* (XV). TS from 8.30 a.m. till nearly 6 p.m., with almost continous R for about 8 hours, 1·72 in.—*Dollar* (XVI). Heavy and long continued TS.—*Strathmiglo, Leden Urquhart* (XVI). A terrific TS, the most severe and prolonged for many years, with remarkably heavy clouds, and darkness shortly after midday.—*St. Andrews, Newton Bank* (XVI). Terrific TS. Pitch dark between 12 and 1. 1·03 in. of R fell in exactly 1 hour.—*Kilmany, Mountquhanie House* (XVI). A tremendous TS and spate of R, 1·70 in., with wonderful darkness.—*Callander, Leny* (XVI). Appalling TS with L in all forms, ball, chain, forked and sheet, accompanied by lurid darkness. T was heard from 7 a.m. to 11 p.m., but the most terrific display of L and T was from 2 to 5 p.m.—*Balquhidder, Stronvar* (XVI). T, L and R, 9 a.m to 7 p.m—*Dalnaspidal H.R.S.* (XVI). T and heavy R.—*Forres* H.R.S. (XVII). T and L.—*Forsinard H.R.S.* (XIX). T and L.—*Bushmills* (XXIII). TS.

NEWSPAPER REPORTS OF HAILSTORMS AND FLOODS ON AUGUST 12TH.

Yarmouth, Norfolk.—During a TS, tropical in its violence, which passed over Great Yarmouth between 9 and 11 a.m., R descended most copiously for nearly an hour, flooding the thoroughfares, choking sewer gratings and damaging cottages. H stones as large as marbles mingled with the R.

Between Malton and Whitby.—At Levisham the storm was most terrific in violence, and large masses of ice in the form of H stones, fully 1¼ to 1½ in. in circumference, fell for some time, doing great damage. An hour after the storm a person exhibited in Malton station a bottle of H stones he had gathered at Levisham, and they were then as large as marbles. The up and down lines of Newton Dale, near Whitby, on the North-Eastern Railway, were completely blocked by the tremendous fall of earth caused by heavy rains and floods; many thousands of tons must have fallen.

Edinburgh.—At Edinburgh much serious damage was done by the R. The steep streets to the west of Queen's Park discharged such a quantity of water and mud into the large sewer which runs along the valley, that it became completely choked, and the water rushed in a large stream into the Queen's Park, flooding it several feet deep, and

converting the whole district from Arthur Street eastwards into a lake. Down the northern slopes of the Calton Hill the water rushed in torrents, carrying with it large quantities of mud, and flooding the lower flats of the houses in Greenside, where for a time great excitement prevailed, and where much damage was done.

Glasgow.—At Pollokshields the heavy fall resulted in the bursting of a large culvert about 100 yards to the west of the railway station. The water rushed with great force into the lyes in connection with the coal and mineral depôt of the Caledonian Railway at Plantation. At the low-lying level, where the railway is spanned by the S. W. R., the water accumulated to the depth of several feet.

Blane Valley, South West, Stirling.—About three o'clock a tremendous volume of water came down the Finglen Burn, arising, it is supposed, from the bursting of a waterspout on the neighbouring hills. The water rose about 12 feet in half an hour, doing considerable damage to the grounds in front of Finglen Bank Cottage, and completely submerging and destroying two fields of barley and oats belonging to Mr. Foyer, Knowehead. The water was unable to get through the bridge at the west end of the village of Haughhead, and flooded most of the houses at that end of the village, the people having to remove their furniture to a safe distance until the water abated. The most serious damage, however, was done to the railway bridge crossing the Finglen burn, a little to the west of Campsie Glen Station, which was almost entirely washed away by the force of the water and the débris, only two girders across being left standing. A similar flood occurred at the same time at Balaggan. The well-known spout of Balaggan had brought down immense quantities of trees, stones, and rubbish into the late bed of the river, which speedily became entirely blocked up. The stream thus arrested formed for itself an entirely new bed for a distance of three-quarters of a mile. On the farm of Broadgate the water stopped all traffic on the public road, and completely submerged a large cornfield. Balaggan House was flooded. Further down the valley at Burnfoot much damage was caused at the distillery, the water entering the premises and washing away hundreds of casks, and indeed almost everything which would float. A mile further down, at Old Killearn, the railway gates across the road were swept away and the traffic was entirely stopped. The river Endrick came down in great volume, bearing with it trees and large quantities of hay. The Kelvin Valley Line was flooded; the 1.30 p.m. train from Glasgow to Killearn was

unable to return, and the communication beyond Lennoxtown was suspended after midday.

Dundee.—At Dundee much damage was done by floods, the streets all through the town presenting the appearance of mountain torrents, and the water rising to the height of three or four feet, and in low-lying districts much damage was done to furniture ; shops and cellars being inundated, and some families being driven out for a time. At Lochee, near Dundee, one of the heaviest downpours of rain ever known occurred, accompanied by T and L. The streets became flooded in a few minutes, and the High-street, which is the main thoroughfare and is situated in a hollow, resembled for a time a swollen stream. The gratings at the top of Bank-street became choked, and the water accumulating into a vast pool found escape by rushing down Bank-street. In all low-lying districts much inconvenience was caused and damage done.

13th.—*Herne Bay* (II). TS.—*Watten H.R.S.* (XIX). Heavy and prolonged TS.—*Lerwick, Montfield* (XIX). TS and strong S.E. gale.

14th and 15th.—*Clifden, Kylemore* (XXII). Continous heavy R 3·55 in. in the 2 days.

19th.—*Winslow, Addington* (III). T and heavy R. ·30 in. in 10 min.

24th.—*Croydon, Addiscombe* (II). Relative humidity at 3 p.m., 29. —*Beaminster* (V). TS.—*Torquay, Babbacombe* (V). TS—*Teignmouth, Woodway* (V). Heavy TS.—*Wincanton, Stowell Rect,* (V). TS.

25th.—*Torquay, Babbacombe* (V). TS.—*Newcastle West* (XX). Slight frost.

26th.—*Croydon, Addiscombe* (II). Min. temp. of month 41°·8 ; on grass 30°·2. The latter is the lowest yet recorded in August.

27th.—*Littlehampton* (II). Gale from W.

28th.—*Watten* H.R.S. (XIX). Continuous and heavy R, 2·17 in. the heaviest fall recorded in 8 years.

29th—*Northampton, Sedgebrooke* (III). Sharp H storm at 11.10 a.m.—*Diss* (IV). R and H.—*Forsinard, H.R.S.* (XIX). Heavy R, 1·54 in.

31st.—*Cookbury Week* (V). W.S.W. gale and heavy R, 1·18 in.— *Nottingham, Strelley Hall* (VII). R from 10 a.m. all day and most of the night, 1·38 in.—*Llandovery* (XI). Heavy R, 1·45 in. and floods.

A Waterspout of Uncertain Date.

(Possibly Aug. 9th ; see page [24]*).*

The *Daily News* of August 26th reports as follows :—During a thunderstorm a few days ago a singular phenomenon which is more often observed at sea than on land, was witnessed at Simmondley, a

village about one mile from Glossop. Behind the village rise precipitous hills, which gird part of the hamlet in something like the shape of a horse shoe, and in the centre of this runs a deep clough. When the storm was at its height the villagers were affrighted by a terrible thunder-clap which seemed to rend the heavens. In a moment or two an immense volume of water, carrying with it large quantities of earth and stones, rushed down the clough and flooded some of the cottages five feet deep with water. The phenomenon was described by the natives as "the bursting of a cloud" (literally a waterspout), and its tremendous force may be gathered from the fact that where the water rushed to the earth it made a great indentation in the hill side, sufficiently large in width and length to enclose a house. The cavity was about 12 yards long and nearly 8 feet deep.

SEPTEMBER.

1st.—*Billericay, Ramsden Bellhouse* (IV). TS.—*Calne, Compton Bassett* (V). TS.—*Broad Hinton* (V). Great H storm of short duration.—*Mansfield* (VII). T, H and R, ·20 in. fell in ten minutes. —*Bushmills* (XXIII). TS.

1st to 6th.—*Canterbury, Burgate St.* (II). 2·85 in. of R, a total for six consecutive days that has only been exceeded once during the last four years.

2nd.—*Acrise* (II). TS.—*Rodmersham* (II). T, L and torrents of R.—*Ketton Hall* [*Stamford*] (VII). TS.

3rd.—*Croydon, Addiscombe* (II). Rainfall ·93 in., the heaviest fall in one day in September for 9 years.—*Gowdhurst Vic.* (II). Between 11 p.m. on 3rd, and 9 a.m. on 4th, 2·42 in. of R fell.—*Debtling* (II) A deluge of R at night.—*Beckenham, Foxgrove* (II). Rainfall 1·01 in. —*Littlehampton* (II). N. gale and much R, 1·48 in.—*Chichester, Westgate* (II). 1·28 in. of R with N. wind.—*Lewes, Iford* (II). 2·01 in. of R, the greatest rainfall in one night for 5 years.—*Maresfield, Forest Lodge* (II). 1·99 in. of R, the heaviest fall in 24 hours recorded during 29 years of consecutive observations.—*St. Lawrence* (II). 1·30 in. of R fell in the night.—*Emsworth, Redlands* (II). Heavy R, 1·18 in. in 12 hours.—*Torquay, Babbacombe* (V). Solar halo.—*Lancaster, South Field* (VIII). T and L.

Alyth, East Perthshire.—"Alyth was visited by a severe TS. The climax of the storm was reached about half-past 7 p.m., when,

after an appalling crash of thunder quite overhead, a hail shower came down with such fury that in two minutes the town was clothed in wintry whiteness. The hailstones were as large as marbles. A mill dam recently erected at the quarry, filled to overflowing, and in consequence of the heavy pressure the whole of the woodwork suddenly gave way, and was carried in a body into the town. The burn, by reason of this breakdown, overflowed its banks, and in a moment the lower portions of the town were completely submerged. The damage done to the dam is over £100."—*Newspaper cutting.* [We unfortunately have no correspondent at Alyth, the nearest being at Lintrathen, Forfar, four miles N.N.E., and at Coupar Angus Station, six miles S.S.W. The storm scarcely reached either.]

3rd and 4th.—*Sandhurst Rectory* (II). The rainfall in the 24 hours ending 4 p.m. of the 4th was 2·89 in.—*Benenden* (II). R in the two days 3·27 in.—*Tenterden* (II). The largest rainfall in two days during 22 years; R began about 10 p.m. on 3rd, and by 9 a.m. 2·27 in. had fallen, and ·71 in. more fell on 4th.—*Tunbridge Wells, Camden Park* (II). Tremendous R, chiefly in early morning of 3rd; total fall in 24 hours, 2·55 in.—*Wadhurst, Lower Cousley Wood* (II). Between 9·30 p.m. on 3rd, and 3.30 p.m. on 4th, 2·72 in. of R fell. —*Southend* (IV). Continuous R from 11 p.m. on 3rd to 4 p.m., on 4th, total fall 2·81 in.—*Billericay, Ramsden Bellhouse* (IV). 2·28 in. of R in the two days.—*Ipswich, Bishops Hill* (IV). Heavy steady R without wind commenced about midnight on the 3rd, about 7 a.m. on 4th, the wind rose and blew strongly from N. all day, the R continuing till about 8 p.m.; the quantity found in gauge at 9 a.m. on 5th was 3·35 in., and it is believed that no appreciable quantity fell on 1st and 2nd.—*Rendlesham Hall* (IV). R began about 11·30 a.m. on 3rd, and continued till 8 p.m. on 4th; total 4·14 in.; 2·27 in. fell in 9½ hours.—*Diss* (IV). Heavy R, 2·45 in. in 17½ hours.—*Geldeston* (IV). 3·00 in. of R fell in less than 35 hours.—*Yarmouth, Dene Side* (IV). A continuous R lasting 12 hours yielded 3·79 in.

4th.—*Rochester, Hoo St. Mary* (II). From 1 a.m. to 9 a.m. 1·68 in. fell, and before 2 p.m. 0·82 in. more, making a total of 2·50 in. in about 13 hours.—*Rodmersham* (II). Very high wind and much R. —*St. Leonards* (II). Moderate gale from N.—*Lewes, Castle Place* (II). Between 0 a.m. and 2 p.m. 1·88 in. of R fell.—*Woodbridge, Bank House* (IV). 3·99 in. of R fell within 20 hours.—*Geldeston* [*Beccles*] (IV). R fell from about 1 a.m. to 11 p.m. amounting to 2·80 in., the heaviest fall recorded in one day during 19 years.—*Melrose, Abbey*

Gate (XII). T, L and R.—*North Esk Reservoir* (XIII). T, L and R. —*Dalnaspidal, H.R.S.* (XVI). T, R and S.—*Lochbroom* (XVIII). A terrific downpour of R about 3 p.m. with one fearful peal of T and flash of L, ·86 in. fell in about 25 minutes.— *Watten, H.R.S.* (XIX). TS.

5th.—*St. Laurence* (II). Four waterspouts passed at 6.10 p.m.— *North Esk Reservoir* (XIII). T, L and heavy R, 1·05 in.—*Newcastle West* (XX). Solar halo.

6th.—*Llanfrechfa* (XI). S.W. gale.—*Miltown Malbay* (XX). N. gale.—*Belfast, New Barnsley* (XXIII). Heavy R 11 a.m. to 7 p.m., 1·49 in.

7th.—*Cranbrook, Hartley* (II). Gale.

12th and 13th.—*St. Laurence* (II). L.

13th.—*Diss* (IV). A singular broken line of dark cloud, with waterspouts at regular intervals to W. at sunset; weather beautiful and bright with light cirro-cumulus.—*Ross, The Graig* (VI). Sudden and very sharp TS at 11 p.m.

14th.—*Torquay, Babbacombe* (V). TS.—*Ashburton, Druid House* (V). T and L.

18th.—*Lancaster, South Field* (VIII). White frost.

20th.—*Alton, Ashdell* (II). T and L.

21st.—*Emsworth, Redlands* (II). TS at 4 a.m.—*Cookbury Week* (V). Heavy R and T and L.—*Burwarton* (VI). Sharp T and H storm. *Kelton Hall* [*Stamford*] (VII). Gale with H and T.—*Mansfield* (VII). T and heavy R.—*Macclesfield Park* (VIII). TS at 0.30 p.m.—*Liverpool, Walton-on-the-Hill* (VIII). T and L.—*Esholt* (IX). TS.—*Ingleton, Halsteads* (IX). In 7 minutes, from 3.53 p.m. to 4 p.m., ·25 in. of R fell.—*Scarborough* (IX). TS.—*Ingleby Greenhow* (IX). TS.—*East Layton* (IX). TS.—*Barnard Castle, Whorlton* (X). TS and heavy R.— *Shap, Copy Hill* (X). TS.—*Appleby* (X). Great darkness about 4 p.m. followed by sharp TS, with nearly ·75 in. of R in less than an hour. —*Llandovery* (XI). Heavy T, L and R.—*Abergwessin* (XI). TS and heavy R.—*Melrose, Abbey Gate* (XII). T, L and R.

27th.—*Torquay, Babbacombe* (V). W.S.W. gale.—*Balquhidder, Stronvar* (XVI). Gale.

28th.—*Melrose, Abbey Gate* (XII). S.W. gale for 12 hours.

29th.—*Torquay, Babbacombe* (V). Solar halo.—*Balquhidder, Stronvar* (XVI). Gale.

30th.—*Ramelton, Killygarvan* (XXIII). S. gale all day.

OCTOBER.

8th.—*Nottingham, Strelley Hall* (VII). Fog in the morning.—*Miltown Malbay* (XX). Strong N.W. gale.—*Clifden, Kylemore* (XXII). N.W. gale.

9th.—*St. Leonards* (II). Heavy R, 1·25 in., and L at night.—*Barnard Castle, Whorlton* (X). S on the moors.—*Shap, Copy Hill* (X). Heavy fall of S at night.—*Olnafirth* (XIX). Gale from N.—*Miltown Malbay* (XX). T and L.

10th.—*Great Stanmore* (I). Snow.—*Wrotham, The Elms* (II). First S.—*Debtling* (II). S on hill.—*Reculver* (II). Gale all night.—*Winslow, Addington* (III). First snow.—*Diss* (IV). Heavy R all day, 1·44 in. in 24 hours.—*Geldeston* [*Beccles*] (IV). 1·52 in. of R fell.—*Norwich, Essex Street* (IV). A very rainy day, followed by a gale and heavy showers.—*Torquay, Babbacombe* (V). N.W. gale with L, H and S.—*Ross, The Graig* (VI). L and H.—*Meltham, Harewood Lodge* (IX). First S.—*Llandovery* (XI). S, sleet, H and R.—*Melrose, Abbey Gate* (XII). First S, Eildon Hills white.—*Galway, Queen's College* (XXII). Heavy squalls with H.—*Ramelton, Killygarvan* (XXIII). N. gale.

11th.—*St. Lawrence* (II). L over the sea.—*Ashburton, Druid House* (V). Hills white with S.—*Macclesfield* (VIII). Potatoes cut down by frost.—*Llandovery* (XI). Snow a foot deep on Black Mountain.—*Balquhidder, Stronvar* (XVI). Gale.

12th.—*Diss* (IV). L in even.

13th—*Calne, Compton Bassett* (V). Sharp frost.

16th.—*Watten, H.R.S.* (XIX). W. gale at night.—*Olnafirth* (XIX). Heavy N.W. gale.

24th.—*Reculver* (II). Very foggy.

25th.—*Croydon, Addiscombe* (II). Dense fog, house invisible at 60 yards.—*Herne Bay* (II). Thick fog.—*Melrose, Abbey Gate* (XII). S.W. gale with L.—*Dalnaspidal H.R.S.* (XVI). Gale, R, sleet, and snow, 1·05 in.—*Loch Shiel, Glenaladale* (XVIII). Between midnight on 24th and midnight on 25th, 3·95 in. of R fell.—*Watten H.R.S.* (XIX). S.W. gale and R.—*Olnafirth* (XIX). Heavy S.W. gale.—*Lerwick, Montfield* (XIX). Strong gale from N.N.W., with 1·18 in. of R.

25th to 27th.—*Abergwessin* (XI). Very stormy.—*Balquhidder, Stronvar* (XVI). Gales.

26th.—*Diss* (IV). S.W. Gale.—*Nottingham, Strelley Hall* (VII). W. gale all day.—*Derby, Elvaston* (VII). W. to N.W. gale.—*Barnard Castle, Whorlton* (X). Very stormy with T and R.—*Loch Shiel, Glenaladale* (XVIII). Vivid L and heavy T.

26th and 27th.—*St. Lawrence* (II). W. gale.—*Mansfield* (VII). Strong gale with R.—*Macclesfield* (VIII). Gale.—*St. Andrews, Newton Bank* (XVI). N.W. gales, heavy on the latter day.

27th.—*Nottingham, Strelley Hall* (VII). W. gale at night.—*Elterwater, Woodlands* (X). T and L.—*Castle Malgwyn* (XI). Heavy gale from N.W.—*Ballinasloe, Kilconnell* (XXII). Gale from W. *Ramelton, Killygarvan* (XXIII). Heavy S.W. gale.

27th and 28th.—*Torquay, Babbacombe* (V). W.S.W. gale.—*Liverpool, Walton-on-the-Hill* (VIII). Strong gale from N.W.—*Lancaster, South Field* (VIII). N.W. gale.

28th.—*St Leonards* (II). Severe W.S.W. gale.—*Emsworth, Redlands* (II). Strong gale from W.—*Leyton Observatory* (IV). Gale from W. *Derby, Elvaston* (VII). Heavy W. to N.W. gales.—*Wakefield, Stanley Vic.* (IX). Gale.—*Melrose, Abbey Gate* (XII). S.W. gale.

29th.—*Wincanton, Stowell Rect.* (V). First frost in air.

30th.—*Dingle* (XX). Heavy gale from W.

31st.—*Miltown Malbay* (XX). Heavy R, 2·02 in.

NOVEMBER.

3rd.—*Newcastle West* (XX). Violent gale.

3rd and 4th.—*Miltown Malbay* (XX). S.W. gale with T and L.—*Clifden, Kylemore* (XXII). Heavy R, with T and L on the latter day, 2·56 in. of R in the two days.

4th.—*Torquay, Babbacombe* (V). S.W. gale.—*Shap, Copy Hill* (X). Strong gale with heavy R.—*Douglas, Victoria Road* (XI). T and L with heavy squalls.—*Melrose, Abbey Gate* (XII). Heavy R, 1·02 in. in 12 hours.—*Dalnaspidal, H.R.S.* (XVI). Heavy R, S and sleet.—*Olnafirth* (XIX). Heavy S.S.E. gale.

5th.—*Torquay, Babbacombe* (V). Gale from W.

6th.—*Sherborne, Stowell Rect.* (V). L in night.—*Galway, Queen's College* (XXII). Strong gale at night with heavy squalls and showers.

7th.—*Burton-on-Trent, Shobnall* (VI). In 15 minutes ·25 in. of R. fell.

8th.—*Oban, Craigvarren* (XV). Heavy R fell without ceasing for 24 hours, 2·65 in. was registered.—*St. Andrews, Newton Bank* (XVI). S.W. gale.—*Balquhidder, Stronvar* (XVI). R for over 20 hours, 3·51 in.—*Lochbroom* (XVIII). Hurricane.—*Miltown Malbay* (XX). Heavy S.W. gale.—*Ramelton, Killygarvan* (XXIII). S.S.W. gale.

9th.—*Melton Mowbray, Coston Rectory* (VII). Very thick fog at night.

10th.—*Ross, The Graig* (VI). Dense fog in morning.

17th.—*Hampen* (VI). Thick fog.

18th.—*Acrise* (II). H, S and R.

19th—*Watten, H.R.S.* (XIX). W.N.W. gale.

20th.—*Debtling* (II). R and S.

21st.—*Acrise* (II). H, S and R.—*Hartley* (II). Strong gale with R, S and sleet.—*Torquay, Babbacombe* (V). N.N.E. gale.

23.—*Ross, The Graig* (VI). Dense fog.—*Nottingham, Strelley Hall* (VII). First flakes of S, and first ice on ponds; min. in shade 29°·2.

25th.—*Herne Bay* (II). Foggy all day.

26th.—*Winslow, Addington* (III). Dense fog.—*N. Level Engine* [*Thorne, Doncaster*] (VII). S storm.—*Nottingham, Strelley Hall* (VII). Thick fog to 8 a.m.—*Lochbroom* (XVIII). Wild day with 2·05 in. of R.—*Watten, H.R.S.* (XIX). Three inches of S on ground.

27th.—*Lochbroom* (XVIII). Strong gale.

28th.—*Scarborough* (IX). Heavy fall of S at night.—*Llandovery* (XI). Heavy H storm.—*Llechryd, Castle Malgwyn* (XI). Heavy H and R.

29th.—*Diss* (IV). Frequent heavy S showers.

29th and 30th.—*Llechryd, Castle Malgwyn* (XI). Much S and R.—*St. Andrews, Newton Bank* (XVI). Very hard frost.

30th.—*Muswell Hill* (I). Heavy S and R, 1·00 in.—*Pinner Hill* (I). S more than two inches deep.—*Great Stanmore* (I). S $4\frac{1}{4}$ in. deep.—*Tonbridge* (II). Gale and sleet in afternoon.—*Eastwell* (II). Heavy fall of S.—*Keston* (II). A heavy fall of S, which, however, was very local.—*Keston Tower* (II). Much S in afternoon and night.—*St. Leonards* (II). Gale from S.S.E. at night.—*Winslow, Addington* (III). Heavy S storm, yielding ·48 in.—*Northampton* (III). Heavy fall of S.—*Northampton, Sedgebrooke* (III). About $4\frac{1}{2}$ inches of S fell in afternoon.—*Peterborough, Springfield House* (III). Heavy S storm.—*Diss* (IV). Heavy S showers with strong breeze from N.W.—*Lynn, Hillington* (IV). Four inches of S.—*Ashburton, Druid House* (V). Ice on ponds.—*Cheadle, Tean Vic.* (VI). Steady fall of S covering the ground to a depth of four inches.—*Melton Mowbray, Coston Rect.* (VII). S $3\frac{1}{2}$ in. deep.—*Ketton Hall* [*Stamford*] (VII). Heavy S.—*Horncastle, Bucknall* (VII). Four inches of S from S.E.—*Nottingham, Strelley Hall* (VII). S from 1 to 9 p.m., 3 in. deep. Min. on stand 23°·3, the lowest point

reached during the year.—*Mansfield* (VII). S 3½ in. deep.—*Worksop, Hodsock Priory* (VII). S about 3 in. deep.—*Derby, Elvaston* (VII). Heavy S.— *Macclesfield* (VIII). Snowstorm noon to 5 p.m.—*Esholt Vic.* (IX). S 4 inches deep.—*Ingleby Vic.* (IX). Five inches of S on ground.—*Dumfries, Crichton Inst.* (XII). S all day.—*Melrose, Abbey Gate* (XII). Ice on the Tweed.—*Belfast, New Barnsley* (XXIII). S 6 in. deep.

DECEMBER.

1st.—*Highgate Nurseries* (I). S yielded ·80 in.—*Watten, H.R.S.* (XIX). S.E. gale.

1st and 2nd.—*Rochester, Hoo St. Mary* (II). S.

2nd.—*Carrick-on-Shannon, Lawderdale* (XXII). Heavy gale from W.

3rd.—*Ely, Stretham* (III). T with H.—*Ely, Stretham Ferry* (III). Heavy T with H.—*Maisemore Lock* (VI). TS.—*Miltown Malbay* (XX). S.W. gale, L.

3rd to 5th.—*Derby, Elvaston* (VII). S.W. to W. gales, with H and L on 4th.

4th.—*Rendlesham Hall* (IV). S.W. gale—*Diss* (IV). Gale from S.W. —*Swaffham, Pickenham Hall* (IV). Gale.—*Launceston, Altarnun* (V). Heavy gale.—*Cheltenham* (VI). TS with H.—*Lancaster, South Field* (VIII). L and H.—*Miltown Malbay* (XX). N.W. gale T, L, H.

5th.—*Macclesfield* (VIII). T.—*Watten, H.R.S.* (XIX). S.W. gale. —*Ramelton, Killygarvan* (XXIII). TS.

6th.—*Eastwell* (II). Terrific gale.—*Hartley* (II). Strong gale.— *Wadhurst, Lower Cousley Wood* (II). Oak and elm not bare of leaf till this date.

7th.—*Dymchurch* (II). Gale at night.—*Diss* (IV). Stiff gale from S.W.—*Ross, The Graig* (VI). Flood on Wye (11 ft. 6 in.) —*Shap, Copy Hill* (X). Strong gale and heavy R, 1·40 in.

8th.—*Melrose, Abbey Gate* (XII). S.W. gale.—*Galway, Queen's College* (XXII). Heavy squalls.

10th.—*Dymchurch* (II). Gale at night.—*Diss* (IV). Gale from S.S.W.—*Calne, Compton Bassett* (V). High wind, T, L and R at night. —*Macclesfield* (VIII). Stormy.—*Elterwater, Woodlands* (X). Very stormy with heavy R, 1·78 in.—*Shap, Copy Hill* (X). Gale with 2·17 in. of R.

11th.—*Ramelton, Killygarvan* (XXIII). N.W. gale.

12th.—*Elterwater, Woodlands* (X). Raining all day, 1·94 in.

13th.—*Carrick-on-Shannon, Lawderdale* (XXII). Heavy E. gale.

14th.—*Derby, Elvaston* (VII). S.W. gale.—*Littlehampton* (XI). Gale. —*Melrose, Abbey Gate* (XII). W. gale.—*Olnafirth* (XIX). Very violent gale for 24 hours.

15th.—*Balquhidder, Stronvar* (XVI). S 4 inches deep.

17th.—*Reculver* (II). Squalls with S.—*Loch Shiel, Glenaladale* (XVIII). Much S down to low ground.—*Miltown Malbay* (XX). Stormy with T, L and H.

18th.—*Tonbridge* (II). L at 8 p.m.—*St. Lawrence* (II). Gale at night, L.—*Emsworth, Redlands* (II). L, R and gale.—*Winslow, Addington* (III). Stormy, with much L at night.—*Calne, Compton Bassett* (V). T and L. —*Cookbury Week* (V). Heavy W. gale, with H, T and L.—*Cheadle, Tean Vic.* (VI). Vivid L, with T and a heavy squall of H and R at 2·30 p.m. *Melton Mowbray, Coston Rect.* (VII). Very stormy with heavy R, H, T and L.—*Nottingham, Beeston Fields* (VII). TS about 2·45 p.m. ; the L was very vivid, and lit up the falling H with a curious effect ; the H stones were very large and lay in many places next day, six of them after being held in the hand a few moments weighed ¼ oz. *Nottingham, Strelley Hall* (VII). TS with heavy R from 2.45 to 3.10 p.m.—*Newark, East Stoke* (VII). At 3.20 p.m. a TS passed from W. to E. with vivid L, violent wind, and not much R. The temp. the night before fell to 28°, and did not rise above 34° all day.— *Mansfield* (VII). S, R and T.—*Derby, Elvaston* (VII). Severe S.W. to N.W. gale and violent TS, with heavy R, H, and S, some of the hail-stones being of very large size.—*Derby, Christ Church Vic.* (VII). Storm of L and T.—*Llanfrechfa* (XI). Violent S.W. gale. R, T and L. *Llandovery* (XI). Very stormy with L.—*Nenagh, Castle Lough* (XX). Sharp TS with heavy H and R.—*Galway, Queen's College* (XXII). Heavy squalls with H showers.—*Ramelton, Killygarvan* (XXIII). Squalls, TS, R and H.

19th.—*West Buckland, Devon County School* (V). Strong gale at night.—*Diglis Lock* (VI). Strong gale and R.—*Miltown Malbay* (XX). Westerly gale with T, L, and H.—*Ramelton, Killygarvan* (XXIII). W. by N. gale and heavy R.

20th.—*Dymchurch* (II). Gale and heavy R at night.— *Rodmersham* (II). L and H.—*Hartley* (II). Strong gale.—*Diss* (IV). Very stormy, with squalls from N.W.—*Macclesfield* (VIII). Gale and heavy R. Bar. rose 1·020 in. in 24 hours, on 21st.

21st.—*St. Lawrence* (II). Bar at 9 a.m exactly an inch higher than on previous day at the same hour.

22nd.—*Olnafirth* (XIX). Aurora.

23rd.—*Littlehampton* (II). Mock sun at 10.30 a.m.

OBSERVERS' NOTES ON THE MONTHS.

JANUARY.

I. *Muswell Hill.* Total rain ·37 in. above the average of 12 years; the number of rainy days was large, but no heavy fall in 24 hours occurred.—*Stanmore.* A wet month, though there was a dry period from 9th to 21st; the last 10 days were very wet, exactly 2 in. of R falling in them.

II. *Dorking, Abinger.* Generally very mild and open, N. and N.W. winds prevailing.—*Croydon, Addiscombe.* Rather wet and very dull, the air being on the whole singularly humid. This was the warmest January for 50 years, and the most windy for 11 years. It was also remarkable for the unprecedented mildness of its lowest shade temp., for sunrises and sunsets of an exceptional character, and for the stormy weather of its last 10 days.—*Hythe.* Cloudy and mild till 21st, afterwards very wet and stormy.—*Wrotham.* Remarkable for the quantity of R which fell during the last week and for the furious gale of 26th. The latter part of the month was very unfavourable for agriculture.—*Littlehampton.* Vegetation similar to that of autumn; temp. higher than anyone can remember; no flights of birds, thrushes singing all day; max. temp. 67°, min. 30°.—*Lewes, Iford.* First three weeks very dry and mild, afterwards very stormy.—*St. Lawrence.* The anti-cyclone from 8th to 21st gave us a long stretch of perfectly calm weather, though without much sun; max. temp. 52°·3, min. 33°·1.

III. *Buntingford, Throcking Rectory.* Warm and wet. Mean temp. 41°·8.—*Addington.* Mild and scarcely any frost; several gales occurred towards the end, that on 26th being unusually severe. At the end of the month several newly formed birds' nests were seen.—*Northampton.* Rainfall ·18in. below the average of 18 years.

IV. *Ipswich, Bishop's Hill.* The month was remarkable for its uniform mildness, especially during the nights. Rainfall nearly ·50 in. below the average.—*Diss.* Very warm, hardly any frost and no day on which fresh wild primroses might not be found; the sun,

however, never once appeared until 6th, having then been invisible for exactly a fortnight. Dull and gloomy, till on 22nd a series of storms with tremendous gales from S.W. commenced, which continued till 28th, with hardly any intermission. The land was wet, and farmers wanted frost; the excessive mildness was not favourable to health.

V. *Calne, Compton Bassett.* Weather during the first part of the month rainy and unsettled; the middle part very fine and dry; the latter part wet and very stormy; max. temp. 53°, min. 30°.—*Torquay, Babbacombe.* Very mild, damp and cloudy, rainfall slightly above the average. The warmest January since 1877; the temp. rose above 50° on 13 days, and the min. was 32°·8. Wet weather prevailed till 8th, dry weather from 9th to 21st, very wet and stormy after 22nd.—*Ashburton, Holne Vic.* A very wet month, rainfall more than that of Jan. 1881 and 1882 put together.

VI. *Hampen.* Very little cold weather; a few wet days at the beginning and then a long spell of dry weather, singularly enough without frost but in general with leaden skies and little sun; during the latter part of the month a great deal of R fell accompanied by violent gales.—*Ross, The Graig.* Certainly the warmest January since 1859, when observations were commenced, and probably since 1834; max. temp. 54°·4, min. 31°·6. Very pleasant calm weather but without much sun in the first part of the month, and the last ten days very windy and wet. Lunar halos on 8th, 9th, 10th, preceded a period of very fine weather-

VII. *Melton Mowbray, Coston.* Very mild; flowers, &c., very forward but damaged by the gales of 23rd and 26th; max. temp. 52°·5, min. 30°.—*Horncastle, Bucknall.* Exceedingly mild; mean temp. 5°·5 above the average; max. 54°, min. 31°; only one day on which the max. was below 40°.—*Nottingham, Strelley Hall.* Very warm but rather wet. Temp. about 5° above the average. Rainfall about half an inch below the average. Little rain fell up to the 21st, twice and from 11th to 21st was rainless. Of the total fall (2·86 in.) 2·18 in. fell from 21st to 31st. The shade temp. only fell below 32°. *Mansfield.* The first three weeks foggy and dirty, but generally mild with slight rainfall; it was then wet and very stormy till 26th, followed by mild wet weather to the close. Rainfall 50 per cent. above the average.—*Worksop, Hodsock Priory.* Remarkable for the mild temp. especially at night, for the severe gales of the last week,

and for the low pressure on the 26th. The mean temp. (43°·0) was about 5° above the average, while from December 9th, 1883, to February 2nd, 1884, or for eight consecutive weeks, the shade temp. never fell below 32°. Rainfall about 1·00 in. above the average. Sunshine deficient. Vegetation very forward, and birds singing all the month. *Derby, Elvaston.* Dry till the 21st; afterwards very stormy. Temp. very high, the mean being 42°·5.—*Mansfield, Stuffynwood.* The first few days were very foggy, but after the 10th, high winds prevailed, increasing to a regular tornado on the 24th, and the night of 26th; temp. very high.

VIII. *Macclesfield.* Rainfall 65 per cent. above the average of 33 years; max. temp. 52°·3, min. 29°·8.—*Cartmel, Pit Farm.* The warmest and wettest January for many years; heavy storms on 23rd and 26th, almost destroyed the wheat plant in exposed fields and left marks as of scorching on yew and other evergreens.

IX. *Halifax, Thorpe.* Rainfall 4·72 in. above the average.—*Scarborough.* A very mild month; temp. 4°·5 above the average of 16 years. Max. 53°·8, min 32°·0.

X. *Penrith, Newton Reigny.* Unusually mild, many garden flowers being in full bloom during the first half. Violent storms of wind, R and H occurred on 23rd and 26th, thousands of trees being uprooted and much damage done.—*Elterwater, Woodlands.* Wetter than the average and very stormy, also extremely mild; primroses and carnations in bloom.—*Shap, Copy Hill.* Gales were frequent, several being specially heavy, but no serious damage was done.

XI. *Llandovery.* Great rainfall, and one of the most severe storms on record, that of 26th being heavier and more general over the country than the one in which the "Royal Charter" went down.—*Castle Malgwyn.* Exceedingly mild, but with very severe gales.—*Douglas, Victoria Road.* Very wet, the only fine days being from 12th to 17th inclusive; there was S on the hills on 2nd, after which date calm mild weather prevailed till 20th; the remainder of the month was wet with some severe gales.

XII. *Dumfries, Crichton Inst.* Frequent and terrific gales, high temp. and heavy rainfall; there was little sunshine, and the weather generally was misty, dull and wet.—*Melrose, Abbey Gate.* A month memorable for the number of gales, that of 26th-27th being very severe. Mean temp. 3°·3, and rainfall 2·53 in. above the average of 12 years. W. or S.W. winds prevailed on 23 days.

XVI. *Dollar.* Dull and mild during the greater part of the month,

very high winds during the last week.—*St. Andrews, Newton Bank.* Very unseasonable, dull, damp and muggy, with several very heavy gales, mostly at night.—*Stronvar.* The month was exceptionally mild; from 5th to 24th it was as mild as May; a severe gale occurred early on 27th, it began about 3 a.m. and was at its worst about 5 a.m.; much timber blown down, and many sheep lost in the S drifts.

XVIII. *Lochbroom.* The first two-thirds of the month more like summer than winter, but the last third was the wildest ever seen here; no description can give an adequate idea of the turmoil caused by the tempest of wind, snow, rain, hail and drifts.—*Loch Shiel, Glenaladale.* Extremely mild till 21st; on 22nd the temp. decreased, and S began to fall heavily on the hills, and S and sleet alternated on the level; this weather accompanied by gales lasted till the 27th, by which time the hills were deeply covered, and there were great drifts.

XIX. *Watten, H.R.S.* The first half of the month was open, mild and windy, the latter half was very cold with a series of storms of wind, at times accompanied by R and S; on several occasions the wind blew with exceptional force.—*Lerwick, Montfield.* The weather was exceedingly mild and the month was remarkable for the storm of the 20th, which did much damage to shipping and property in the district. Prevailing wind W.

XX. *Tipperary, Henry Street.* Very mild, but damp up to 15th, from 15th to 20th very fine; strong gales from N.W. on 21st, 23rd and 26th, fine after 28th.—*Castle Lough.* The beginning and end of the month were very wet, the middle was very fine and mild.—*Miltown Malbay.* Generally wet. The first half unusually mild with rapid vegetation, but on 17th the temp. fell considerably and stormy weather set in with H and S, T and L, the wind generally backing to S., from which point the gales always commenced, then veering gradually to N.N.W. and abating. The damage was confined to the stripping of some roofs, and the destruction of vegetation.

XXII. *Ballinasloe, Kilconnell.* Temp. remarkably high throughout. —*Castlebar.* Moderate rainfall, for the first ten days, followed by a similar period of fine weather; heavy rains accompanied by stormy weather prevailed during the remainder of the month.—*Carrick-on-Shannon, Lawderdale.* From 1st to 19th mild but wet; from 20th to end, cold and bleak, with light falls of S, and heavy gales.

XXIII. *New Barnsley.* Wet but open weather to the 14th, fine and spring-like from 14th to 23rd when a most violent storm occurred

which continued on the following day doing immense damage to buildings, plantations, &c., S showers, R, T and frost prevailed to the end of the month.—*Bushmills.* High temp., and great rainfall (75 per cent. above average) and great storms on 23rd and 26th. —*Stewartstown.* The greatest rainfall in January during seven years. —*Ramelton, Killygarvan.* Weather till 20th not bad, though there were a good many days with R, but after that date it was very rough with two severe gales, L, S, and H. Rainfall and temp. both considerably above average.

FEBRUARY.

I. *Muswell Hill.* Total rainfall little more than two-thirds of the average of 12 years.—*Stanmore.* Rainfall below the average, but, as for some months past, a large number of days with small amounts of R.

II. *St. Lawrence.* Though the actual rainfall was below the average, the constant R and damp delayed farming operations.—*Croydon, Addiscombe.* The seventh mild February during the last nine years. —*St. Leonards.* Very mild; no S; 904 hours of bright sunshine, and the weather altogether more like advanced spring than winter.

III. *Buntingford, Throcking Rect.* A particularly dry month. The driest February for 20 years. Mean temp. 40°.—*Addington.* Rainfall 1·32 in. below the average of 14 years; everything very advanced, birds building, and a thrush's nest with three eggs found on 10th. —*Northampton.* Rainfall 1·38 below the average of 18 years.

IV. *Ipswich, Bishop's Hill.* Very dry and warm. Rainfall ·59 in. below the average.—*Diss.* Warm open weather, with S. and S.W. winds till 17th, then changing to E., the last week being cold with occasional sprinklings of S, but no severe frosts throughout the month; much wind amounting to gales, and heavy squalls with H, &c., during the second and third weeks, notably on 9th and 10th; rainfall small; the young crops look very well indeed and gardens are very forward.

V. *Compton Bassett.* Weather showery, dull and cold, only two sharp frosts.— *Torquay, Babbacombe.* Mild, wet and stormy, with rather low pressure and average amount of cloud and humidity; rainfall more than one-third above the average. Very dull and gloomy from 3rd to 7th; stormy and wet on 1st, and generally after 8th. Temp. roseo 50° on nine days.

VI. *Hampen.* Although not so much rain in the aggregate as in January it fell on a greater number of days, and sufficed to keep the ground in a very sodden state. The month was mild with but few frosts, and now and then some cold winds.—*Cheltenham.* Very boisterous with many rainy days.—*Ross, The Graig.* The month, though with scarcely any frost, was nearly 3° colder than January. The first week was fine, but almost constant R prevailed during the rest of the month. Vegetation made little progress.

VII. *Coston.* The driest February since observations were commenced in 1873.—*Partney.* Gloomy weather and much mist; mean temp. 40°·1.—*Bucknall.* Mild with much cloud, small rainfall and a marked absence of frost; strong S.E. winds blew on 15th and three following days.—*Nottingham, Strelley Hall.* Mean temp. 1° above, and rainfall about half an inch below the average.—*Mansfield.* February commenced with excess of wet, more than half the rainfall of the month (1·63 in.) falling in about six hours on 1st; on the whole mild and comparatively dry.—*Worksop, Hodsock Priory.* Another mild month, though the mean temp. was considerably lower than that of January. Rainfall less than in the corresponding month of any of the previous eight years except 1878; of the total fall, two-thirds came in the first nine days, so that the rest of the month was dry. A good month for farm work. Vegetation very forward.

VIII. *Macclesfield.* Mild and on the whole genial, rainfall 30 per cent. below the average.

IX. *Scarborough.* Generally damp and cold, but the absence of frost made the temp. slightly above the average, S on three days.—*East Layton* [*Darlington*]. Unusually fine and dry, more like spring than winter.

X. *Hesket, Newmarket.* Generally mild, scarcely any frost or S; violent gale from S. E. on 12th; considerable damage done in the village; latter part of month springlike.—*Shap, Copy Hill.* An open month; no frost and very little S; several strong gales, but no great damage was done.

XI. *Llanfrechfa.* Damp and wet, agricultural work much retarded by the weather of this and the preceding month; vegetation too forward.—*Castle Malgwyn.* Exceedingly wet, with more wind than usual; no frost worth speaking of.—*Douglas, Victoria Road.* Uninterruptedly wet, with gales and an almost entire absence of sun.

XII. *Melrose.* Mean temp. (34°·6) 7° below, and rainfall 1·13 in. above, the average of 12 years; a good many gales, that of 21st being

the most severe; prevailing winds southerly on 15 days, northerly and easterly on 14 days.

XVI. *St. Andrews.* Most unpleasant; very cold winds from S. to S.W. prevailing till the middle of the month; then E. and S.E. winds with occasional showers of S and sleet; from 22nd to 26th very fine but cold; 4 in. of S on ground on March 1st.

XVIII. *Lochbroom.* The first half of this month was wet and stormy, the other half was cold, dry, and frosty, with a continual piercing wind, but on the whole the weather was favourable for agricultural purposes.—*Glenaladale.* Beginning of month very wet and mild, latter half fine and seasonable.

XIX. *Watten, H.R.S.* Fresh and open with high winds, mostly from S.E.—*Lerwick.* Weather rather stormy, strong winds from S to S.E. prevailing; no S.—*Olnafirth.* Open unsettled and windy; frosts rare, S scarcely ever covered the ground, a few days felt very cold, but as soon as R came it changed mild again.

XX. *Newcastle West.* A month of violent contrasts: mild as May, wild as March, soft as April, and colder than December.—*Miltown Malbay.* Generally wet, raw, boisterous and stormy, with much T and L and very little frost, only four days without R; there having been little drying weather for the past six months the surface earth is very wet, and agricultural business retarded. L on nine days.

XXII. *Castlebar.* During the first week the rainfall was small, but the rest of the month was marked by heavy falls.—*Carrick-on-Shannon, Lauderdale.* The weather during the month was mild, with constant R, and frequent strong winds.

XXIII. *New Barnsley.* S showers and R, with stormy weather, but occasional fine days; land very wet, nothing can be done till dry weather sets in; very little frost.

MARCH.

I. *Muswell Hill.* Total rainfall ·02 in. below the average of 12 years, the last three weeks of the month were very dry, all but ·05 in. of the R recorded, having fallen between 3rd and 10th.—*Stanmore.* A dry month on the whole, though the first third of it was wet; no R worth speaking of falling between the 11th and 31st.

II. *Croydon, Addiscombe.* Dry and singularly calm, the sixth warm month in succession and the calmest March for eighteen years. It was also remarkable for its freedom from any but light fogs,

for the steadiness of atmospheric pressure during nearly the whole of its last three weeks, for the moderate character of its strongest winds, and for the unprecedented warmth, for so early in the year, of its highest temperature.—*St. Leonards.* Mild and fine; 130 hours of bright sunshine were recorded.—*St. Lawrence.* A most pleasant month and very favourable for agriculture; rainfall exactly the average of 15 years.

III. *Buntingford, Throcking Rect.* Bright and dry, with a remarkable absence of rough windy weather. Mean temp. 42°·7.—*Addington.* From 10th until the end it was very dry, and to the 17th fine and warm, but afterwards it became much colder, dull and rather sunless, but fine weather for out-door work.—*Oundle.* Very changeable, some days very hot, and others quite cold, no frosts worth speaking of.

IV. *Southend.* General temp. much above the average, amount of cloud also above the mean.—*Ipswich, Bishops Hill.* Fine and generally dry, with several very warm days about the middle.—*Weybread Vic.* [*Harleston*]. Remarkably mild with small rainfall; frost on ground on 19 nights, but not at all severe except on the first three days.—*Diss.* Very fine and plenty of "March dust." The slight rainfall occurred chiefly in the first ten days; from 21st to 30th the wind was N. and the weather cool, but there were no severe frosts, and everything in field and garden looked well.

V. *Compton Bassett.* The first half of the month was dull and showery; the latter half dry, harsh and cold, with seven frosty nights.—*Torquay, Babbcombe.* Mild and cloudy, with average pressure and humidity; the rainfall was slightly above the average; the temp. rose to 50° on 20 days. Solar halos frequent.

VI. *Andoversford, Hampen.* Temp. higher than usual, and E. winds almost entirely absent, except during the latter part of the month.—*Cheltenham.* Seasonable weather; mean temp. 2°·0 above the average of seven years, rainfall 1·04 in. above the average for the same period.—*Ross, The Graig.* Wet till the 13th, and then occurred the hottest week recorded here in March as regards mean temp. (slightly higher max. has been registered). The latter part of the month was characteristic, but the cold was not quite so searching as usual, with N.E. wind, though its effects on vegetation and health were very marked after the great warmth of the period 13th to 20th.

VII. *Melton, Coston.* The month was divided into two cold periods by the warm interval from 15th to 19th; the continued cold wind from

19th to 30th checked the progress of vegetation and seemed to dry up everything.—*Bucknall.* Very fine, with fewer frosty nights than any March during 17 years. The max. temp. of the 16th and 17th, 66°, is higher than previously recorded at so early a date in March during the above mentioned period. —*Nottingham, Strelley Hall.* Temperature considerably above the average, and rainfall about equal to average. No R fell from 20th to 31st.—*Mansfield.* March opened with cool, fine weather, but the 3rd and 4th were continuously wet days, with S at intervals; beautiful spring weather prevailed from 14th to 19th, after which date it was cool and dull to the end. A marked absence of boisterous winds.—*Worksop, Hodsock Priory.* Mean temp. 42°·7, being 0°·9 above the average; max. temp. 68°·4 on 16th, unusually high, and has not been exceeded in either March or April since 1876. Sunshine deficient. Rainfall about the average, but nearly all of it came between the 3rd and 9th. A favourable month for farm work, but the land was getting dry.—*Derby, Elvaston.* The first and latter parts of the month were cold, but it was very warm for about a week during the middle; generally dry and pleasant.

VIII. *Chester, Lead Works.* Rainfall above the average, but the number of wet days below it.

IX. *Scarborough.* Temp. high nearly all the month, especially so between 12th and 19th; the last week was cold with E. winds.

X. *Shap, Copy Hill.* The early part of the month was cold, very wet, and unsettled, the latter part seasonable.

XI. *Llanfrechfa.* Mild till the 19th with a good deal of wet, retarding agricultural work; afterwards cold and gloomy, but drying for the land.—*Llandovery.* Very mild, and spring arrived prematurely; apple and pear blossoms appeared early, but the latter part of the month was cold, with S on the hills.—*Castle Malgwyn.* The first part of the month was cold and wet, the latter part cold with E. winds, but comparatively dry; rainfall above the average.—*Douglas.* Wet and sunless; vegetation backward, grass hardly springing; primroses barely out anywhere; very cold E. winds after 24th; temp. somewhat above the average but neutralized by wet and wind.

XII. *Dumfries, Crichton Inst.* Wet, cold, and unpleasant. S and sleet showers were frequent during the first half of the month; there was little sunshine, and only one week of dry weather.—*Melrose, Abbey Gate.* Mean temp. (37°·4) 0°·6 above the average; rainfall ·05 in. below the average. Hills white with S at the end of the month.

XVI. *St. Andrews, Newton Bank.* Very fine, and the R fell mostly at night.—*Stronvar.* Very little sunshine, and considering the state of the weather previously, we are better without it, or growth would have been too forward, latter part of month cold but dry, wind mostly S.E. and E.

XVIII. *Lochbroom.* Very fine for outdoor work, but everything too forward. A cold period towards the end of the month.—*Glenaladale.* First part of the month cold, wet, and stormy, the latter part fine, there were a few days of extremely fine mild weather; S low down on the hills at the close.

XIX. *Watten, H.R.S.* The first part of the month was cold with high winds and a good deal of R, the latter part cold and dry.—*Olnafirth.* Fine, mild and open, but rather windy, consequently few fishing days; spring far advanced.

XX. *Dunmanway, Coolkelure.* Exceptionally damp and mild; from the 26th to the 29th, being the only hard days.—*Newcastle West.* Wet, mild, and calm, spring work very backward; towards the end of the month winter wheat was reploughed, having rotted instead of vegetating.

XXIII. *New Barnsley.* Uncertain and changeable throughout; occasional very fine days followed by sleet, R, and severe frost; farming operations very much retarded.

APRIL.

I. *London, Lansdowne Crescent, W.* Warm until the 10th, cold and very dry afterwards; mean temp. 46°·2.—*Great Stanmore.* A dry month on the whole, but the first week was wet, in fact two-thirds of the total R was recorded between the 2nd and 7th. Virtually there was no R between the 7th and 26th.

II. *Abinger.* Very dry, good for the land generally; fruit crops suffered severely from sharp frosts.—*Croydon, Addiscombe.* Dry and dull with a calm and humid atmosphere. This, besides being the first unseasonably cold month for seven months, was also, with the exception of 1879, the coldest April for 23 years. It was likewise remarkable for the persistent coldness of its last three weeks, for the great severity, considering the time of year, of the frosts of the 22nd, 23rd and 24th, and for the unusual prevalence of N.E. winds.—*Hythe.* Very ungenial with cold N.E. winds.—*Littlehampton.* Remarkably cold vegetation checked, and nearly all the stone-fruit ruined.—*St.*

Leonards. A seasonable month, but with a deficiency of bright sunshine, only 134 hours being registered.—*St. Lawrence.* Rainfall ·87 in. below the average of 15 years. A very dry period from the 6th to the 26th, followed by a refreshing fall of R.—*Emsworth, Redlands.* Strong, cold, dry winds from N.E. to S.E. prevailed all the month, and frost occurred every night from 8th to 13th and from 16th to 30th. Vegetation very backward.

III *Buntingford, Throcking Rect.* Another very dry month. The prevailing wind being easterly, the weather, though bright and dry, was cold. A lower min. temp. was registered on 23rd (26°·9) than in any of the four preceding months. Mean temp. 43°·0.—*Winslow, Addington.* Dry with cold N.E. wind; a sharp frost on 23rd did much damage to the fruit crop.

IV. *Ipswich, Bishop's Hill.* Rainfall below the average; from the 9th to the 27th it was cold and dry, with N., E., and N.E. winds and several frosts.—*Weybread Vic.* [*Harleston*]. April will be remembered for the bitterly cold spell which began on the 8th and lasted without intermission to the 26th; 19 days of strong to moderate and very cold N.E. wind, keeping vegetation at a standstill.—*Diss.* The first six days were warm and pleasant, the wind then shifted from southerly to a northerly direction, where it remained till 26th; the days were cold, but there were no sharp night frosts till 17th, when they began and continued till the 26th, cutting the young and forward vegetation considerably; the last five days of the month were warmer, with much needed R.

V. *Torquay, Babbacombe.* Very cold and dry, with low pressure, humidity and amount of cloud, R slightly below the average; no R fell from 6th to 20th. The mean and max. temp. were both below those of March—a fact never observed before. The coldest April since 1879.

VI. *Hampen.* Remarkable for the continuance of cold E. winds and the almost entire absence of sunshine; it was dry especially in the latter part, with occasional frost, and vegetation made but little progress.—*Ross, The Graig.* First week wet and rather warm, afterwards very cold and vegetation at a stand. Laurels and tender plants injured by frost on 22nd and 23rd.

VII. *Melton Mowbray, Coston.* Very cold and damp, with no heavy R but frequent showers and persistent N.E. winds.—*Nottingham, Strelley Hall.* Temperature 2°, and rainfall slightly, below the average; there were, however, many wet days.—*Mansfield.* Remarkable for

frequent cold showers, the number of rainy days being large, while the rainfall was exactly the same as the average of 14 years. Mild till the 6th, with S. or W. winds, then cold to the end with N. and E. winds; marked absence of sunshine.—*Worksop, Hodsock Priory.* For the first nine days the temp. was above the average, but during the rest of the month it was considerably and steadily below it, with N.E. winds and showery weather. The mean min. temp. was 2°·1 lower than in January, while the absolute min. was lower than in either December, January or March. Sunshine was deficient. Vegetation made scarcely any progress during the last three weeks, while the frosts did much harm to the fruit blossom.—*Derby, Elvaston.* Showery and rather warm for the first week, then very cold, and on the whole, dry. Vegetation backward; six frosty nights.

VIII. *Macclesfield Park.* Exceedingly cold and dry, N. or E. winds prevailing from 6th to 29th. Severe frosts on six nights were very hurtful to vegetation. Rainfall 45 per cent. above the average.—*Liverpool, Walton-on-the-Hill.* Rainfall considerably below the average; temp. low towards the end, the wind keeping for the most part in the east.—*Cartmel, Pit Farm.* The first half of the month was very warm; the last part very cold and frosty, damson blossom, which was very full, being destroyed.

IX. *Scarborough.* Very little heavy R. Very cold winds from the 6th to the 29th, generally E.—*Ingleby Vicarage.* Warm and genial till 14th, favorable to vegetation. Much colder afterwards with slight frosts at night, putting an almost complete stop to all growth. —*East Layton* [*Darlington*]. April came in most favorably, but a change took place on the 11th when very cold biting winds from N. and N.W. set in, continuing to the end of the month and greatly retarding vegetation.

X. *Pawston* [*Coldstream*]. The rainfall of April was noteworthy, for, although the month was a dry one, only 1·08 in. falling, there were twenty rainy days, small amounts being registered every day from 11th to 22nd inclusive. — *Elterwater, Woodlands.* Cold north-easterly winds prevailed after the 10th, and somewhat checked vegetation. Rainfall nearly 2 inches below the average.—*Shap, Copy Hill.* Generally dry and very cold. N. and N.E. winds, with hard frosts at night damaged and delayed vegetation.

XI. *Llanfrechfa Grange.* Cold, with some hard frosts, which, however, on account of the dryness, did no injury to fruit.—*Castle Malgwyn.* Very cold throughout, from the 21st extremely so; and

drier than usual.—*Douglas, Victoria Road.* Fine; wind E. from the 5th. A backward spring.

XII. *Dumfries, Crichton Inst.* Cold, cloudy, and ungenial. Rainfall greatly below the average, and temperature fully 2° below. S lay on the hills at the beginning of the month. There were no high winds, and few frosty mornings, so that vegetation progressed well.—*Melrose, Abbey Gate.* Mean temp. (39°·2) 1°·9, and rainfall ·76 in. below the average of 12 years. Wind N.E. on 23 days, moderate in force; vegetation made little progress.

XVI. *St. Andrews, Newton Bank.* E. winds prevailed nearly the whole month, which, though at times bitterly cold, was fine. The rainfall was small. Towards the end of the month the frosts at night were severe.—*Balquhidder, Stronvar.* The early part of the month was fairly good for vegetation, but the latter part retarded it; the dry weather, however, gave the crops a good seed bed. Great prevalence of E. wind.

XVIII. *Lochbroom.* The finest April remembered in this district; quite like summer.—*Loch Shiel, Glenaladale.* A most beautiful month, warm, dry, and very calm. Wind mostly S.E., occasional frost at night.

XIX. *Watten, H.B.S.* The first week was fine, the rest of the month cold; sunless days and frosty nights being very prevalent.—*Olnafirth.* Fine and very dry.

XX. *Nenagh, Castle Lough.* Dry and cold; H showers, and frequent frosts at night, with N. and E. winds retarded vegetation, but the dry winds were beneficial for tillage operations.—*Newcastle West.* Frost was more frequent than showers of any kind, and the showers that fell had no April softness about them, being generally S or sleet. A good month for tillage.—*Miltown Malbay.* Cold, boisterous and parching, with E. winds. Vegetation nipped by night frosts. A good month for tillage, bad for pasture.

XXII. *Ballinasloe, Kilconnell Rect.* Remarkably dry, with fairly high temp.—*Castlebar.* With the exception of the first few days the rainfall was very moderate; there were 15 days on which the record was nil, during which time light E. winds prevailed.

XXIII. *Rathfryland.* Sunshine nearly all the month, but with cold E. and N.E. winds.—*Belfast, New Barnsley.* Showery till the 5th, then fine, cold and dry, with frosty nights.—*Ramelton, Killygarvan.* A fine month, very suitable for getting in the crops. Temp. near the average; rainfall about ·45 in. below it.

MAY.

I. *Stanmore, Springlands.* Extraordinarily dry, particularly after the first week, seven-eighths of the total (·74 in.) falling in the first seven days.

II. *Abinger.* Very dry; vegetation in great want of R, and all grass crops light.—*Croydon, Addiscombe.* Warm, bright and exceedingly dry, the driest atmosphere and least rainfall in May for over 20 years, and the most windy May for 18 years.—*Hythe, Kent.* Very fine and dry; no R after the 14th.—*Keston.* Very fine and dry during the month, occasionally very warm, and frequently cold, vegetation suffering from want of R.—*Littlehampton.* Very dry, rainfall less than half an inch, pastures never before known so parched and dry.—*St. Leonards.* Very dry. 225 hours of bright sunshine were recorded.—*Lewes, Iford.* Very dry, with a few hot days, but as a rule frosty nights and sunny days. *St. Lawrence.* Rainfall ·33 in. below the average of 15 years. Had it not been for the gracious rain which fell on the 24th, the land would have been completely parched. Flowering shrubs most magnificent.

III. *Buntingford, Throcking Rect.* Dry, bright and warm. Probably the driest May since 1848. Mean temp. 52°·7.—*Winslow, Addington.* After the 12th, only ·06 in. of rain fell, and by the end of the month the pastures were suffering; there were some beautiful bright days, but cold N.E. wind kept things in check.—*Northampton.* Rainfall of the month ·80 in. below the average of 18 years.—*Peterborough, Springfield House.* A stormy May, T on two days, the latter part of the month fine.

IV. *Harlow, Sheering.* Rainfall little more than one quarter of the average of 15 years.—*Ipswich, Bishop's Hill.* Very dry, rainfall less than one-fourth of the average; Cold with E. and N.E. winds most of the month.—*Weybread Vic.* [*Harleston*]. A genial and on the whole old-fashioned May, but with deficient rainfall, like the preceding months.—*Diss.* After six wet and windy days the weather set in beautifully warm and fine, and so continued till the evening of the 18th, when the wind shifted from W. to E. and N. E. It then turned cold and night frosts nipped the young crops rather sharply. The brilliancy of the weather however, continued, and the 20th to 27th inclusive, were days of unbroken sunshine. From the 27th to the end of the month it was cold and cloudy.

V. *Calne, Compton Bassett.* The first seven days dull and showery; from thence to the end the days were mostly bright and sunny, but

the nights were cold for the time of year.—*Torquay, Babbacombe.* Dry and fine, with an average pressure and temp. Rainfall one-third less than the average. More than half the R fell on the 24th (·89 in.), the only day on which R was measured after the 13th. Cold and showery till the 8th, and cold from 12th to 16th, but fine from 19th to 23rd, and warm from 23rd to 27th.—*Wincanton, Stowell Rect.* Very fine and dry; mean temp. about 1° below the average, but on the 11th and 24th it rose to an abnormal height. Vegetation was forward early in the month, but during the latter part was retarded by want of R.

VI. *Ross, The Graig.* The driest May since 1844; temp. about the average; max. above 70° on six days. Vegetation somewhat hindered by drought.

VII. *Melton Mowbray, Coston.* Very dry, with great fluctuations of temp. R much wanted for the meadow land at the close of the month.—*Ketton Hall* [*Stamford*]. Though commencing with a few showery days, the month was very fine, nearly two-thirds of the R having fallen during a TS on 12th.—*Partney.* With the exception of the first week, the month was extremely dry and parching.—*Horncastle, Bucknall.* Drought becoming severe at the close of the month, and grass scarce.—*Nottingham, Strelley Hall.* Warm, sunny, and very dry; rainfall 1·40 in. below the average. No R fell between the 15th of this month and the 5th of June. This dry period ruined the swede-turnip crop, the seed could not sprout till the R came; some did not come up till July, any which did come was devoured by "fly." —*Mansfield.* Rainfall the lowest recorded in May, being little more than one-third of the average of 15 years. The month opened with cold, showery weather, changing to warm, sunny days, which, with a few exceptions, continued to the end of the month, the evenings being generally cool.—*Worksop, Hodsock Priory.* Rainfall less than that of any May since 1876, and less than in any month since April, 1881; the greater part of what R fell came in the first week. The country was getting rather dry, and R was wanted at the end of the month. Temp. and pressure were about the mean. Sunshine, though more than in the last May, was less than in the same month of the two preceding years.—*Derby, Elvaston.* Very fine and dry, with no R after the 15th. Temp. about the average.

VIII. *Tarporley, Oulton Park.* During the early part of the month the weather was changeable, with plenty of R, but the last fortnight was wonderfully dry.—*Macclesfield Park.* Cold and dry Nearly two-

thirds of the R fell in the first four days. The frosty mornings and easterly winds of the latter half of the month were very injurious to vegetation.—*Liverpool, Walton-on-the-Hill.* Fine and dry; winds changeable throughout. Rainfall below the average.

X. *Barnard Castle, Whorlton.* High wind and R at the beginning of the month, then fine and warm; the last week dull and cold.—*Elterwater, Woodlands.* Very wet and stormy from the 1st to the 16th. The total R for the month was nearly 4 inches above the average of 12 years.—*Shap, Copy Hill.* The early part of the month was wet and very cold, but after the 17th no R fell, and at the end of the month the land was very dry, and water becoming scarce. During the latter part of the month the days were hot, with frosts at night, making the prospects bad for hay crop.

XI. *Castle Malgwyn.* Rainfall below the average, but the air was cold nearly the whole month, though the sun was very powerful.—*Douglas, Victoria Road.* Unsettled and very cold to the 15th, then extremely fine to the end of the month, with E. winds and much bright sunshine. Vegetation backward.

XII. *Dumfries, Crichton Inst.* A rather pleasant month, the first part being showery with occasional high W. winds, the latter part cool and dry, with easterly winds. Rainfall rather below the average. Pressure and temp. rather above it. The weather generally was favourable to the crops.—*Melrose, Abbey Gate.* The mean temp. of the month was 1°·1, and rainfall ·12 in. below the average of 12 years.

XVI. *Balquhidder, Stronvar.* The max. temperatures of the month were about the average, but the minima were low, especially during the latter part of the month. Rainfall was a good deal above the average.

XVIII. *Lochbroom.* The beginning of the month was more dismal than winter, but the rest of the month was splendid, and the last 10 days were magnificent.—*Loch Shiel, Glenaladale.* The weather of the first three weeks was most inclement; the remainder of the month exceptionally fine and warm.

XIX. *Watten, H.R.S.* The first week was cold, the rest of the month dry, mild, and fine.—*Olnafirth.* A very wet month as a whole, but fine during the last week.

XX. *Tipperary, Henry St.* The first half of the month was severe, the second half, fine.—*Newcastle West.* The month opened with bitter windy weather, but closed with a succession of splendid warm days

—*Miltown Malbay.* The first three weeks were wet, windy, and unusually cold. On the 21st warm weather set in, lasting to the end of the month, and this, aided by a few soft showers, created a vigorous vegetation.

XXII. *Castlebar.* Showers were very frequent during the greater part of the month, but towards the end the weather became very fine.—*Carrick-on-Shannon, Lawderdale.* From the 1st to the 10th the weather was cold and wet; the remainder of the month was mild and seasonable.

XXIII. *Belfast, New Barnsley.* Cold and showery till the middle of the month, afterwards warmer and very fine till the end; at times hot. Vegetation backward.—*Ramelton, Killygarvan.* Stormy and wet for the first 17 days, afterwards remarkably fine; no frost of any consequence. Rainfall about 1·25 in. above the average. Temp. about the average.

JUNE.

I. *London, Lansdowne Crescent, W.* Rather cold until the 24th, no R from the 9th to the 29th.—*Muswell Hill.* The rainfall of the month was very remarkable, for while the number of days on which R fell was only eight, making the month appear a very dry one, the heavy falls which occurred on the 5th, 6th, and 7th, (3·41 in.) swelled the total to nearly half as much again as the average of 12 years.

II. *Dorking, Abinger.* Very warm and dry, vegetation suffering a good deal; hay crop very light but good; wheat and oats looking well.—*Croydon, Addiscombe.* Rather cold, dry, and dull with an exceedingly calm and very humid atmosphere. The calmest June for 19 years, and the fifth June during the last six years in which the air was unusually damp.—*Keston.* Pleasant and cool throughout. About two inches of R fell in the early part of the month which did immense good; but more was wanted towards the close.—*St. Leonards.* Cloudy and cool; the temp. in shade, exceeded 70° on only two days. 180 hours of bright sunshine were recorded.

III. *Buntingford, Throcking Rect.* The bright dry weather continued, though the temp. was somewhat below the mean. Mean temp. 55°·9.—*Winslow, Addington.* Fine and dry with a great prevalence of northerly winds. Very little T, only two slight storms.—*Northampton.* Rainfall 1·66 in. below the average of 18 years.

IV. *Ipswich, Bishop's Hill.* Rainfall less than half the average, making the seventh consecutive dry month.—*Weybread Vic.* [*Harleston*]. Very dry, especially from the 10th to the end of the month, during which time there were only three days on which any R fell, and then only ·02 in. in all.—*Diss.* Brilliant weather; nearly the whole of the small amount of R fell between the 5th and the 10th; there was hardly any wind throughout the month, and no TS or other disturbance. During the last few days the heat was very great, and R much wanted. The hay harvest though light in quantity was exceptionally fine. Wheat looking well, but other crops suffering from drought. A good deal of illness, principally affections of the throat and lungs.

V. *Calne, Compton Bassett.* The first seven days were dull, cold, and showery—thence to the 27th the days were dry and sunny, the nights cool; heavy R fell on the 28th, which revived vegetation after the drought of 18 days.—*Torquay, Babbacombe.* Dry, fine and warm, with a rather high bar.; the rainfall was one-third less than the average; showery from 2nd to 7th and 28th to 30th, fine and dry from 8th to 21st and 23rd to 27th; cold till 10th, then generally warm. The daily range of temp. was large and the mean humidity at 9 a.m. (68) was the lowest recorded since observations were commenced in 1876.—*Wincanton, Stowell Rect.* A bright month with great heat, and heavy R at times.

VI. *Ross, The Graig.* Although the rainfall of June was about 60 per cent. in excess of the average, vegetation suffered from drought, the R at the commencement being lost in the succeeding three weeks of hot and dry weather. The early part of the month was cold for the season.—*Ledbury, Colwall.* The month of heaviest rainfall, though with fewest wet days, two falls of nearly an inch and a half occurring, 1·36 in. on 5th, and 1·44 in. on 28th.

VII. *Melton Mowbray, Coston.* Warm and dry. Very beneficial to cold clay land, although meadows suffered and the ponds and springs began to dry up; the driest June for many years —*Partney.* Very dry and harsh, but the rains of the 6th and 8th preserved the crops in this neighbourhood.—*Horncastle, Bucknall.* Drought very severe all the month. No measureable amount of R fell after the 9th.—*Nottingham, Strelley Hall.* Cold, dry and sunless. Temp. 1°·5, and rainfall nearly 2 in. below the average. Although only 27 per cent. of the possible duration of sunshine was recorded the sun shone on every day but two. From 8th June to 4th July,

only ·28 in. of R fell.—*Mansfield.* Remarkably warm and dry, alike free from T and high winds. Rainfall the smallest in June since 1874.—*Worksop, Hodsock Priory.* Mean temp. about the average, but the daily range was large, both the mean and absolute max. being higher than in any year since 1878, while the mean and absolute min. are the lowest yet recorded; rainfall about half that of any other June during nine years. The amount of sunshine was very similar to that of June in the last three years. Corn looked well; hay a short crop; R much wanted for turnips, and in the gardens. —*Derby, Elvaston.* Very fine, dry, and pleasant. Rainfall very slight; temp. 1° above the average.

VIII. *Oulton Park.* With the exception of a few days the month was very sultry and hot, in fact such weather has not been experienced for three or four summers.—*Macclesfield Park.* Very dry; vegetation quite parched in many gardens. Rainfall little more than one-third of the average.—*Liverpool, Walton-on-the-Hill.* Exceptionally fine and dry, and for the most part warm; rainfall considerably below the average.—*Cartmel, Pit Farm.* Much drier and warmer than usual, but springs held out very well.

IX. *Market Weighton, Houghton.* Great drought, ponds drying up and water scarce at the end of the month.

X. *Barnard Castle, Whorlton.* Very dry and hot, ground much parched.—*Elterwater, Woodlands.* Very dry and much warmer than in many previous years.—*Shap, Copy Hill.* The driest June for many years; pastures burnt quite brown, and water very scarce in many places. Corn very short, and other crops poor.

XI. *Llanfrechfa Grange.* Very dry with hot sun, but cool winds checking vegetation; grass crops very short.—*Castle Malgwyn.* Very fine and dry, but the winds were cold, being generally from N., N.E., or N.W., turning perhaps for one day to the S. and then veering back.—*Douglas, Victoria Road.* Unusually fine, very dry and bright, with temp. above the average; 76° (the max. on the 28th) being very rarely registered here, and not having occurred previously since 1878.

XII. *Dumfries, Crichton Inst.* Warm and very dry, the rainfall being the smallest in June since 1874. The mean pressure and temp. were above the average, and the weather generally, though occasionally sultry, was very pleasant. Winds very light; crops rather injured by drought. *Melrose, Abbey Gate.* The month was characterised by great drought, only a few partial showers falling; the driest June

for 13 years, the rainfall being 2·23 in. below the average; all crops suffering through want of moisture; mean temp. 52°·9, being 1°·7 below the average; frost on two nights.

XVI. *Dollar.* Dry, with cold winds at the beginning, but warm towards the end.—*St. Andrews, Newton Bank.* Rainfall the smallest in any month for some years; the country round is completely parched, and should R not come soon, the crops will suffer seriously. —*Balquhidder, Stronvar.* Exceptionally dry, but this did not stop the growth of vegetation in any way, as there were heavy dews almost every night. Wind very variable.

XVIII. *Lochbroom.* A glorious month.—*Loch Shiel, Glenaladale.* Fine; the first three weeks somewhat cold, the remainder very hot and sultry.

XIX. *Watten, H.R.S.* Dry and often cold, cloudy, and even sunless, but milder towards the close; a good month.

XX. *Dunmanway, Coolkelure.* Abnormally dry, generally bright, warm and sunshiny; wind principally between N. and E., fresh, but not cold.—*Dingle.* Unusually fine, but vegetation very late.— *Newcastle West.* Very fine; uplands burned up; hay, &c., very light. —*Kilkishen.* Very dry, with only nine days slight R, and in consequence water in wells was very low.—*Miltown Malbay.* Opening with a fierce north-wester with frost at night, the first week of this month was boisterous and cold, with occasional H showers; the second week was sunny, with frost on three nights, injuring vegetation and destroying potato stalks; the third week was very warm, delightful June weather, with copious dews; the last week hot and sultry, burning up the pastures.

XXII. *Kilconnell Rect.* The driest month remembered, attended by delightful, moderate temp.—*Clifden, Kylemore.* Remarkably fine, with some days close and sultry.

XXIII. *Belfast, New Barnsley.* Very fine and dry; crops greatly needing R.—*Bushmills.* Rainfall only one-fourth of the average.—*Ramelton, Killygarvan.* Dry, but without much bright sun, or it would have been warmer than the average, instead of colder. There were two or three very warm days near the end of the month. Rainfall about 2·19 in. below the average.

JULY.

I. *Great Stanmore.* The total rainfall for the month is somewhat below the average, though the number of days on which R fell is

rather large; the first four days passed without R, after which there was only once a period of three consecutive days on which no R was recorded.

II. *Dorking, Abinger.* The warm weather with which the month opened was succeeded by a showery and cold period, cold winds prevailing; this produced a good deal of mildew on many plants, and was injurious generally; another warm period followed towards the end of the month. Rainfall light and generally in showers.—*Croydon, Addiscombe.* Warm, particularly dull, very calm and rather dry; this was the sixth dry month in succession.—*Hythe.* Dull and showery, with frequent T and L.—*Keston.* Generally cool, but there was some warm weather in the first half. Vegetation suffered much from want of R, fruit crops, excepting strawberries, being very deficient.—*St. Leonards.* Frequent TSS, though the heat was at no time excessive. 202 hours of bright sunshine were recorded.

III. *Buntingford, Throcking Rect.* A month of real summer weather. TSS somewhat frequent, that of the 9th being especially heavy, and yielding 1·60 in. of R. Mean temp., 61°·0.—*Winslow, Addington.* Rather showery, at times hindering haymaking, although the R was wanted and did much good.—*Northampton.* Rainfall ·93 in. above the average of 18 years, resulting in greatly improved crops of all sorts. Every promise of a good corn harvest.

IV. *Weybread Vic.* [*Harleston*]. A small amount of R spread over the whole month. Harvest began in the Eastern Counties during the last week, a fortnight earlier than for some years past.—*Diss.* Magnificent weather throughout, the long drought which commenced in June being broken by gentle R on 5th and 6th, but the gardens were dried up, and wild flowers scarce. The winds were light, and the few TSS, not severe. Temp. very high both night and day. Harvest commenced at the end of the third week, and much wheat and oats were cut before the 31st.

V. *Calne, Compton Bassett.* Showery, there being only nine days on which no R fell. At the close the weather cleared and the last three days were fine, bright, and dry.—*Torquay, Babbacombe.* Rather wet and cold; rainfall about one-eighth above the average, but the greater part fell at night. The weather was showery and unsettled, except for two or three days at the beginning and end of the month.—*Cookbury Week.* The month opened fine, but wet soon set in continuing till the 28th; on the whole it was a very warm, wet month, though no great quantity of R fell.—*Wincanton, Stowell Rect.* Very wet with

temp. below the average. Haymaking was interrupted during the greater part of the month.

VI. *Hampen.* With 25 wet days July was a truly disastrous month for the farmer, the hay that was out at the beginning of the month (a very considerable amount) was entirely spoilt, and hoeing the root crops was almost wasted labour, whilst the wet weather combined with low temp. had a most injurious effect upon the cereals.—*Ross, The Graig.* The month, though cooler and more showery than in S.E. England, was, on the whole, warmer than any since 1878, excepting 1881 ; hay-making was much hindered, but crops looked well ; no severe TSS, but much electrical disturbance and a succession of sharp, short showers. A fairly fine month, though the R was 50 per cent. above the average, and the number of rainy days was also large.—*Hereford, Burghill.* Cold, and exceptionally wet, rather in continuousness of R than in amount, injuring potatoes, wheat, and some other crops which were previously phenomenally fine. During the whole month there were only twice, two consecutive dry days.—*Cheadle, The Heath House.* A wet month, doing much damage to hay crops ; much T and L in the first part.

VII. *Melton Mowbray, Coston.* A very stormy month, containing two wet periods—from 4th to 10th, and 21st to 28th. T and L very frequent.—*Ketton Hall* [*Stamford*]. Warm and fine, the max. temp. on several days being excessive. The last few days of the month were sultry. Mean temp. 61°·5.—*Horncastle, Bucknall.* The drought which commenced in June continued with great severity up to the 4th of this month, when wet and unsettled weather set in and prevailed till the 28th ; the last four days were very still and sultry.—*Nottingham, Strelley Hall.* Temp. above the average ; rainfall 1·45 in. above the average ; a large number of wet days. The large total for the month (4·14 in.) is chiefly due to the falls of the 9th and 10th, ·62 in., and 1·06 in., respectively.—*Mansfield.* The month commenced with dry weather, but welcome rain set in on the 4th, followed by frequent showers till the close of the month. The last week was dull and sunless, with high bar., but constantly changing wind. There was great improvement in all crops during the month. Rainfall ·95 in. above average.—*Worksop, Hodsock Priory.* The month was chiefly remarkable for the heavy TSS in the early part. The first 10 days were very warm, but the rest of the month was showery and rather cold, so that the mean temp. was just about the average. Sunshine was deficient, and rainfall much above the average, but the excess

was mainly due to the very heavy storm on the 9th. This rain was much wanted, and greatly benefited the turnips and grass, but it was too heavy for the corn, and much of the wheat was very badly laid.—*Derby, Elvaston.* Very unsettled; R fell on 24 days; much electrical disturbance. Temp. very high on many days, the mean for the month being 2° above the average.

VIII. *Oulton Park.* July was very unsettled; R fell daily, with few exceptions, and the air was at times rather cold.

IX. *East Layton.* T and R prevailed during the whole month, and at times a great amount of R fell in a short period.

X. *Haltwhistle, Unthank Hall.* The rainfall of July (9·29 in.) was unusually large, two heavy falls occurring, 2·01 in. in six hours on 4th, and 2·10 in. on 10th.—*Haydon Bridge, Ridley.* The total fall, 6·74 in., was the greatest recorded in any month since the record commenced in 1881; had the R not come at the time it did, almost the whole of the crops would have been irretrievably ruined.

XI. *Llandovery.* An anxious month for hay-makers, with rain on 25 days out of 31; still much hay was secured.—*Castle Malgwyn.* Damp, with frequent heavy showers and much T and L.—*Douglas, Victoria Road.* From the 4th the weather was wet and cold, with occasional very strong winds. A typical Manx July.

XII. *Dumfries, Crichton Inst.* Warm and moist, the first half especially being very sultry, and TSS of almost daily occurrence; the latter half, though showery, was cooler and more pleasant. The mean pressure and temp. were rather above the average, and the winds generally were equable and light. Vegetation was forced into full activity and crops promise well.—*Melrose.* This month was as much characterised by its great amount of R as June was by its drought. R fell on 25 days, the total fall being 3·13 in. above the average of 13 years. Mean temp. 3°·2 below the average. There was more T and L than for many years, but doing very little damage. Hay below the average, other crops promising.

XIII. *Innerleithen.* July was characterised by frequent and severe TSS accompanied by heavy R.

XVI. *St. Andrews, Newton Bank.* Very wet; R set in on 3rd and fell almost daily till 26th; it was, however, much needed, and came in time to save the turnip crop; there was also a good deal of T and L.—*Balquhidder, Stronvar.* On the whole the month was mild, and the rainfall not much above the average. Fine growing weather for meadow hay, also good for hill grazing.—*Craigton.* Two heavy falls

of R occurred in the month, 1·72 in. on the 11th and 1·44 in. on the 16th.

XVIII. *Lochbroom.* More than five inches of R and 25 rainy days must give July the character of a rainy month; there was almost a constant drizzle. The first half was sultry, and beautiful growing weather, the latter half bitterly cold, with S on the hill tops, and very often H and sleet on the low grounds.—*Loch Shiel, Glenaladale.* Fine growing weather. About the middle of the month for some 10 days the temp. fell considerably, but the beginning and end of the month were very warm.

XIX. *Watten, H.R.S.* Fine, and as a whole dry and mild, though there was slight frost on one or two nights.

XX. *Dunmanway, Coolkelure.* Close and hot, the R falling very much like T showers, though there was hardly any T or L; there was a good deal of N. wind, but not generally strong.—*Newcastle West.* Variable, more like April than July.—*Miltown Malbay.* Rather a cold, dripping July, with high winds from the south, sometimes approaching the force of a gale; the last week was sultry, with muggy weather, doing damage to cut hay, and spreading the blight on potatoes, but giving a great spurt to vegetation. Only seven days without R, but the fall, save on two days, was light.

XXII. *Clifden, Kylemore.* The month was very wet all through, but the R fell mostly at night.—*Carrick-on-Shannon, Lawderdale.* Almost continuous light R during the month, with occasional hot sun, heavy showers on 3rd and 4th, yielding 2·28 in. in the two days.

XXIII. *Belfast, New Barnsley.* The month opened fine and hot, but there were occasional T showers from the 5th to the 16th, and the weather was unsettled to the end. Little harm was, however, done to the hay crop, and roots and cereals were much benefited by the R.—*Ramelton, Killygarvan.* The rainfall of the month was about an inch above the average, but June having been dry this excess was advantageous. Temp. was also above the average.

AUGUST.

I. *London, Lansdowne Crescent, W.* A very hot and dry month, mean temp. 66°·1. Temp. rose above 80° on 15 days.—*Muswell Hill.* A very dry month, the total rainfall being not quite three-eighths of the average for 12 years.—*Great Stanmore.* More than two-thirds of the whole R was registered during the last eight days.

II. *Abinger.* A remarkable month for the harvest; much corn

secured without any R; roots and garden produce suffered severely and the R at the close was very welcome.—*Croydon, Addiscombe* Singularly dry; the hottest and calmest August, and one of the brightest, for 20 years. Remarkable as regards the first 24 days, for the great number of hot days, the singular calmness and dryness of the atmosphere, the few days on which R fell, the large diurnal range, and afterwards for the complete change which took place at the commencement of the last week.—*Hythe.* Very hot, dry, and brilliant. R falling on only six days.—*St. Lawrence.* Remarkably warm and dry, only ·24 in. of R fell between July 28th and August 26th, the R of the closing days was most refreshing and beneficial. Total for the month, 1·47 in. below the average of 15 years. Harvest was secured early and well. —*Emsworth, Redlands.* Great heat and dry weather to the 24th, with scarcely any T or L all the month. From the 25th to the end of the month, cloudy skies, and driving showers.—*Winchester, Harestock.* Unusually warm and fine, with a marked effect on the growth of young trees.

III. *Buntingford, Throcking Rect.* A splendid month for harvest work, the temp. being considerably above the average. Mean temp. 63°·1.—*Winslow, Addington.* A very fine month, temp. high to the 25th, after that lower to the end.—*Peterborough, Springfield House.* Fine and hot for the first three weeks with pressure very high. T on two days.

IV. *Weybread Vic.* [*Harleston*]. The hottest and driest month for very many years; ponds and wells in many places dry.—*Diss.* Magnificent weather, intensely hot till the 25th, when the max. temp. fell to 65° (it was 90° on 24th). It rained slightly on two days before the 24th, but the other days were almost unbroken sunshine, the temp. twice rising to 90°. The last week was much cooler, with gentle R. Splendid harvest weather, fine crops being nearly all secured before the R set in. The turnip crop, however, failed for want of R, and beet was poor. Wells and ponds dry in every direction, and gardens much burnt up.

V. *Calne, Compton Bassett.* Very fine, the R in the after part being very acceptable. Max temp. above 80° on eight days, min. below 50° on 10 days.—*Torquay, Babbacombe.* Hot, dry, and fine. Rainfall less than one third of the average; and of this the greater part fell on the 31st. Fine dry weather prevailed till 26th, but it was showery afterwards. The mean temp. (62°·4) was the highest observed in any

month since observations were commenced in August, 1876; the max temp. was the highest since July 15th, 1881; the mean diurnal range and extreme range were the largest, and the relative humidity was the lowest, yet observed in August.

VI. *Hampen.* Up to the 9th the weather was splendid for ripening the corn, and from the 14th to the 23rd was also very fine and a good deal of corn was cut and got together in good condition. After the 26th the weather was simply wretched, so that rather more than half the harvesting still remains to be done.

VII. *Melton Mowbray, Coston.* A very fine month on the whole; the harvest early and well got in. Mean temp. (61°·1) high, but reduced by the cold nights.—*Ketton Hall [Stamford.]* Up to and including the 24th it was very dry—just the weather for the harvest operations, but after that it was cooler with refreshing showers, finishing on the 31st with a good wet day and night. T was almost absent.—*Horncastle, Bucknall.* The finest harvest month for many years. Max. temp. above 80° on 11 days; the 11th was the hottest day since July 5th, 1881.—*Nottingham, Strelley Hall.* Very warm and dry to the 25th, when a change to dull showery weather took place. Of the total rainfall (2·07 in.) 1·38 in. fell on 31st; there were only seven wet days. Late hay was got in in grand condition. Corn harvest commenced about the 8th.—*Mansfield.* One of the most sunny and cheering harvest months for many years; the temp. reached 82° on 11th and continued high until 25th. The last week was cloudy and unsettled, ending with excessive wet on the 31st, when 1·18 in. fell.—*Worksop, Hodsock Priory.* From 1st to 25th very warm (at times hot) fine and dry, but the last six days cold, dull and showery. The mean temp. higher than that of any corresponding month of the previous eight years except 1880, while for higher day temp., both max. and mean, we must go back to 1876; the daily range also was very large. Sunshine showed a considerable increase on any of the three previous years. Rainfall below the average, and the number of rainy days very small, in fact nearly all the R fell on three days. Harvest began about the end of the first week, and was very nearly finished at the close of the month. Crops were fair.—*Derby, Elvaston.* Remarkably fine and dry, with excessive heat and great solar power until the 25th.

VIII. *Liverpool, Walton-on-the-Hill.* Up to the 24th the weather was remarkably fine and dry and exceedingly warm, the temp. rising to 80° on five days. Rainfall considerably below the average.

IX. *Wakefield, Stanley Vic.* The brilliant weather was favourable to gathering in the corn, but not to green crops. Fruit scanty and poor for want of moisture. Harvest commenced on the 2nd, and was all but completed within the month.—*Market Weighton, Houghton.* Most of the wells in this neighbourhood failed for want of R. —*Scarborough.* Exceptionally dry. R on only two days up to the 26th, and the total fall 1·09 in. below the average of 18 years.—*East Layton.* Fine with much sunshine. Harvest likely to be better than for many years.

XI. *Castle Malgwyn.* Generally hot and dry, but the rainfall not much below the average.—*Douglas, Victoria Road.* A beautiful month of real summer weather and (excepting the last week, which was very cold,) high temp. Harvest began about the middle of the month.

XII. *Dumfries, Crichton Inst.* The rainfall was very small, but the mean temp. was greatly above the average and winds were usually light. The month generally was very favourable for the harvest. TSS frequent.—*Melrose, Abbey Gate.* Mean temp. about the average, and rainfall 1·69 in. below it. Harvest began on the 13th, a fortnight earlier than last year. S. and W. winds on 22 days, moderate in force.

XVI. *St. Andrews, Newton Bank.* Very fine. Harvest began on 22nd, and the crops are most abundant.—*Balquhidder, Stronvar.* Temp. very high, but no good weather for haymaking, the dry days being close, without wind, and with very little sun. Last week much cooler.

XVIII. *Lochbroom.* An excellent month, good for every purpose; calm on sea, warm on land, and fast ripening the corn.—*Tain, Springfield.* Fine harvest weather, with scarcely a break in the work.—*Loch Shiel, Glenaladale.* A fine month, very warm, calm, dull, and hazy; bad harvest weather, having no drying qualities, but available for most other out-door occupations.

XIX. *Watten, H.R.S.* Fine, mild, sunny, and dry; on 28th, 2·17 in. of R fell, the largest amount recorded during the eight years that observations have been made.—*Olnafirth.* Dense fogs and consequent lack of sunshine prevailed greatly during the month.

XX. *Dunmanway, Coolkelure.* Weather generally very seasonable, warm and calm.—*Newcastle West.* Fine, though with but little sunshine. Hay and straw light, turnips scarce, but general harvest prospects good.—*Miltown Malbay.* A fine harvesting month; the first half torridly warm with L on five or six nights, but no T and very

little R; the remainder changeable, but withal a profitable time for farmers.

XXII. *Clifden, Kylemore.* Wet and stormy, generally bad for harvesting; the end was cold also.

XXIII. *Belfast, New Barnsley.* Very fine and hot, sometimes tropical; the considerable rainfall greatly benefited most crops.—*Ramelton, Killygarvan.* Rather wet, but the R was not excessive, being only about ·60 in. above the average; temp. about the average.

SEPTEMBER.

I. *Muswell Hill.* The rainfall of the month was again deficient, the total being barely five-eighths of the average of 12 years. The first six days of the month were wet, more than three quarters of the total falling in that time, and though R was recorded on nine other days, the amounts were trifling.

II. *Croydon, Addiscombe.* Warm and bright, the eighth dry month in succession.—*Wrotham.* The drought ended on the first of the month, and in the first four days 4·40 in. of R fell, which brought on all sorts of greenstuff wonderfully.—*Littlehampton.* Unusually wet, but the R was much needed for autumn tilth; garden crops of all kinds made great advance; temp. low.—*St. Leonards.* The month was at first cool and very wet; the middle, however, brought a change, and the weather became exceedingly warm for the season; 140 hours of bright sunshine were recorded.—*Emsworth, Redlands.* Very warm after the 7th; from 17th to 20th the heat was very great. From the absence of frost and gales the trees did not commence shedding their leaves.

III. *Winslow, Addington.* The first week unsettled and showery, the remainder fine, and often very warm, the max. temp. being the highest recorded in September since 1871.

IV. *Weybread Vic.* [*Harleston*]. A very heavy fall on the 3rd and 4th appeared to indicate the termination of the drought, but dry weather again set in on the 9th, and lasted till the close.—*Diss.* After the first nine days which (excepting the 5th) were very wet, the weather was extremely fine. Out-door grapes, figs, and blackberries ripened wonderfully.

V. *Calne, Compton Bassett.* The weather during the first part of the month was cloudy and showery; the middle part very fine, bright and sunny; the latter part cloudy, with drizzling rain.—

Torquay, Babbacombe. Warm and rather dry. The rainfall less than half the average, but the usual number of wet days, showers having been frequent. Cold showery weather prevailed till the 7th, and after the 22nd, but it was very warm from the 9th to the 20th. A pinkish mist was frequently seen round the sun.

VI. *Hampen.* After about the 9th, the month was fairly good for finishing harvest, except that the fogs were very hindering.—*Ross, The Graig.* A warm month, but with a good deal of cloud; amount of R very small, but the number of days on which it fell was large. Mean temp. from 7th to 21st very much above the average. Very favourable for later harvest, also for hop and apple picking. Nights very warm till 30th.

VII. *Barkby.* A marvellous crop of mushrooms this month, four cwts. were gathered in a field of only two acres.—*Melton Mowbray, Coston.* Dry and fine, rainfall less than that of any of the preceding eleven Septembers.—*Ketton Hall, [Stamford].* Generally speaking fine and dry; what little R fell, had not much effect, the ground being dry and heated.—*Horncastle, Bucknall.* Another very dry month. The dryness of the land at the close of the month was extraordinary for so late a period of the year. Turnips and all green crops suffered much from insufficient moisture. Just 12 months since there were very heavy floods in Lincolnshire. The max. temp. (80°·0 on 17th) has not been equalled in this month during the last 14 years.—*Nottingham, Strelley Hall.* Very warm and dry, favourable for harvest, which was generally finished about the 20th. Rainfall nearly 2 in. below the mean, and only 11 wet days.—*Mansfield.* The month commenced with a gloomy day, with T, R and H, and the first week was very unsettled causing much barley and oats to be carried too hurriedly, but the bulk of the crops was harvested in good condition. The remainder of the month was beautifully fine, with occasional slight showers, the third week being unusually warm. Rainfall 1·95 in. less than the average, and the smallest in September during 15 years.—*Worksop, Hodsock Priory.* Temp. both max. and mean, higher than in any of the previous eight Septembers, except September 1880, while the rainfall was less than half that of any September during the same period. A grand month for cleaning stubbles. Root crops very fair. Mean temp. 57°·5; mean humidity 85; duration of sunshine 117 hours..—*Derby, Elvaston.* A fine month generally, with many very fine days with high temp., especially from 9th to 21st.

VIII. *Tarporley, Oulton Park.* With the exception of a few days, the early part of the month was like summer, but the latter part was very changeable though not unseasonable, the nights being especially keen and cold. *Macclesfield Park.* Temp. above the average, the max. being above 70° on six days, and above 60° on 21 days.

IX. *Scarborough.* Rainfall 1·79 in. below the average.—*East Layton.* Very hot and dry, but with some heavy fogs; harvest cleared much earlier than usual. Turnips late, and much needing R.

X. *Shap, Copy Hill.* The early part of the month was fine and summer-like, but after a TS on the 21st R fell every day until the close.

XI. *Castle Malgwyn.* Warm and fine, rather showery, but without heavy R.—*Douglas, Victoria Road.* If we except the heavy R on the 6th and 15th, the weather up to the 21st was fine and genial, and very favorable for the ingathering of the crops; the remainder of the month was somewhat cold, wet and stormy. On the whole, however, it was a very fair September.

XII. *Dumfries, Crichton Inst.* Very variable, but upon the whole damp and wet, the rainfall being above the average; there were, however, many days of bright sunshine, and the mean temp. was high, and there was no frost.—*Melrose, Abbey Gate.* The mean temp. was 1° above, the rainfall ·78 in. below, and the number of wet days 5 above, the average of 13 years. S. and W. winds prevailed on 22 days.

XVI. *St. Andrews, Newton Bank.* The month opened well, very fine weather prevailing, with a good deal of T and L in the evenings, but no R. With the 7th set in a fortnight of damp foggy weather, greatly retarding the harvest.—*Balquhidder, Stronvar.* A very backward month for harvest; although the middle was dry, there was no wind, and comparatively little sun; the last week was very stormy. Hay crop not all secured, and very little grain safe.

XVIII. *Lochbroom.* Excepting on the 4th and 5th, the weather was beautiful till the 22nd, when it became cold and boisterous, continuing increasingly so to the end.—*Loch Shiel, Glenaladale.* Beautiful, and extremely hot, weather up to the 22nd. Afterwards colder, very wet and stormy.

XIX. *Watten, H.R.S.* A fine month, the first ten days bright, mild, and sultry, the middle portion foggy, and the latter part cool and breezy. Excellent harvest weather.—*Lerwick, Montfield.* Very mild, much fog about the middle.

XX. *Dunmanway, Coolkelure.* A very seasonable month. Equinoctial gales not severe.—*Tralee, Castlemorris.* The latter part of the month was very squally; wind principally from N.W. to S.W.—*Miltown Malbay.* Good harvesting weather to the 20th, with high temp.; from the 20th to the end high winds with broken weather and low temp. prevailed; rainfall moderate.

XXII. *Clifden, Kylemore.* The early part of the month was fairly good for harvesting, but after the 18th it was almost constantly wet, with heavy storms from N., N.W., and W.—*Carrick-on-Shannon, Lawderdale.* Mild, but unseasonable weather for harvesting.

XXIII. *Belfast, New Barnsley.* The month was showery till the 6th, on which day much R fell. From the 10th to the 20th it was remarkably fine and hot, with occasional showers, thence to the end showery. Altogether a good month for farmers.—*Ramelton, Killygarvan.* The early part of the month, and the last 10 days, wet, but the rest of the month was remarkably fine. Rainfall about ·25 in., and temp. 1°, above the average. No gales, except on 30th.

OCTOBER.

I. *Muswell Hill.* Another dry month, the total rainfall being about three-eighths of the average of 12 years, during which time October only once had a smaller rainfall, viz., in 1879.—*Great Stanmore.* Another month with the rainfall much deficient, the total being about two-fifths of the average. The same characteristic was exhibited in this as in the previous three months, viz., the majority of the amounts recorded being extremely small.

II. *Abinger.* A glorious month; land in excellent working condition.—*Croydon, Addiscombe.* Cold, dull, and extremely dry. This was the ninth dry month in succession, and the air also was drier than in any October for six years.—*Hythe.* The first 12 days showery, the rest of the month unusually fine.—*Keston.* A very genial October, weather unusually calm, except towards the close.—*Littlehampton.* Another dry month; summer flowers still blooming, and all vegetation wonderful. Very little wind compared with ordinary years. Song birds charming; sparrows strongly suspected of gathering material for nests.—*St. Laurence.* Remarkably fine; rainfall 2·70 in. below the average of 15 years. Swallows remained until the 29th. German gum-cistus blooming for the second time at the end of the month.—*Emsworth.* Extremely mild, night and day, all the month;

a great dearth of water, wells and brooks dry.—*Southampton, Cadland.* Rainfall three inches below the average of 24 years.

III. *Buntingford, Throcking Rect.* The weather continued so dry that water became scarce. Mean temp. 47°·9. Rainfall much below the average.—III. *Winslow, Addington.* Fine and dry; rainfall the smallest in October, with the exception of 1879, for 14 years. Land very dry and hard, and brooks lower than for many years. Autumn tints exceptionally fine.—*Northampton.* Mild from 14th to 18th; cold from 20th to 23rd; mild afterwards, and at times foggy; rainfall 1·74 in. below the average of 18 years.

IV. *Ipswich, Bishop's Hill.* A very fine and pleasant month; rainfall ·59 in. below the average.—*Weybread Vic.* [*Harleston*]. A considerable amount of R fell early in the month, but after the 12th another dry period set in. The river, which had been exceedingly low the whole year, rose bank high for two days. There were a few strong gales, but of no great consequence.—*Diss.* A fine autumn month. R fell daily from 6th to 12th inclusive, but it was then dry till 25th; no severe frosts, and the autumn fruits ripened well. Only one day (the 10th) without bright sunshine or blue sky; three brilliant days concluded the month.

V. *Calne, Compton Bassett.* Remarkably dry, with some very bright and sunny days, and only one sharp frost.—*Torquay, Babbacombe.* Dry and cold. Rainfall only about one-fifth of the average. The weather was dry, with a high bar. from 3rd to 7th, and 14th to 22nd, but showery with a low bar. from 8th to 12th and 24th to 28th. There were many warm days, but it was very cold from the 8th to the 13th.—*Wells, Westbury.* Very mild and spring-like, with violets in full bloom in the gardens; slight frosts during the last few days.

VI. *Bristol, Clifton.* The driest October for 32 years.—*Hampen.* Extremely fine with a very small quantity of R. Good for farming operations, but disastrous to many places which were short of water. —*Ross, The Graig.* With the exception of the 8th and 9th scarcely any R fell, and the total is less than that of any October since 1818, except 1830 and 1879. The rainfall for September and October together (2·29 in.) is much lower than any previous record. Temp. below the average from 4th to 13th inclusive. Autumn tints particularly splendid. Springs very low.

VII. *Melton, Coston.* A very mild dry month with high winds at the beginning and the end. Cold on 5th, 9th, and 10th.—*Horncastle,*

Bucknall. Another exceptionally dry month, the driest October during 12 years, the nearest approach to it being 1879.—*Nottingham, Strelley Hall.* Another very dry month, rainfall more than 2 in. below the average. Temp. about the average. This month, though generally one of the wettest, was the driest during the year. Very little sunshine.—*Mansfield.* Rainfall less than that of any October during the preceding 14 years, being 2·57 in. below the average—a deficiency of more than 250 tons per acre, causing a serious deficiency of water supply, and delaying wheat sowing. Generally calm and mild.—*Worksop, Hodsock Priory.* Another dry but rather cold and dull month; the second week was much colder than the average, after which there was a considerable rise of temp., but the last week was very stormy. Humidity below average. R less than in any October of the previous 9 years, except 1879.—*Derby, Elvaston.* Fair, dry, and very pleasant, with but little wind and an average temp.

VIII. *Liverpool, Walton-on-the-Hill.* Although falling on 16 days the rainfall for the month was very small, being about 2·50 in. below the average. Temp. during the last few days was rather high, and the weather unsettled.

IX. *Scarborough.* Cold from 8th to 13th, and also from 25th to 30th, the rest of the month very mild. Rainfall 1·18 in. below the average.—*East Layton* [*Darlington*]. An unusually dry and warm October, the ground as dry as at midsummer, and water supplies failing generally.

X. *Shap, Copy Hill.* Towards the end of the month the weather was rather wet and unsettled, but not bad for the tenth month of the year.

XI. *Llanfrechfa Grange.* Very calm, and amount of R unusually small. Very favourable for agricultural operations.—*Castle Malgwyn.* The rainfall was below the average, and the month was very mild: only one frost.—*Douglas, Victoria Road.* A fine autumn month with (excepting the last week, which was wet and stormy) a remarkable absence of gales. The rainfall was less than half the average of 10 years, and the least recorded in October during that period—excepting 1879. All summer flowers, including even heliotrope, blooming well at the close.

XII. *Dumfries, Crichton Inst.* On the whole a fair average month; although the rainfall was small, the weather was damp, misty and mild; temp. slightly above the average; the month generally was quiet, except during the last week, when there were several gales from S.W.

—*Melrose, Abbey Gate.* One of the finest Octobers for a great many years, being the driest for 13 years, with a rainfall 1·93 in. below the average; the mean temp. was 0°·4 below the average, and frosts occurred on 12 nights. S.W. winds prevailed on 24 days, moderate in force till 25th, after which there were some severe gales.

XVI. *Dollar.* Very fine except the last week, which was very boisterous and wet.—*St. Andrews, Newton Bank.* Very fine, with occasional gales; from 15th to 24th the weather was remarkably fine and warm, but on the 25th the weather broke and became very boisterous with two heavy gales before the end of the month.—*Balquhidder, Stronvar.* Very mild till the last week, which was wet and stormy. Much S on the hills at the end of the month.

XVIII. *Lochbroom.* A deluge month; as bad an October as has been experienced for many years; half the potatoes still unlifted at the close; the last week very wet and stormy.—*Loch Shiel, Glenaladale.* Weather mild till the 9th, when it became very cold and boisterous, with much S on the hills; on the 12th it again became mild, and continued so till the night of the 25th, when the wind veered round to N. and blew a heavy gale, with low temp. and H; the temp. continued low with H, sleet, and S on the hills, till the 30th, when it rose considerably.

XIX. *Watten, H.R.S.* The month opened fine and mild; the second week was cold and stormy, followed by a week of fine mild weather; the last week was very cold with a series of gales with R, H and S showers.

XX. *Dunmanway, Coolkelure.* Fine, mild, calm, and agreeable weather during the month, most of the R falling at night.—*Tipperary.* The first half fine; the second half variable.—*Miltown Malbay.* A fine, mild, October excepting from the 7th to the 14th, during which time northerly gales prevailed. Rainfall below the average.

XXI. *Edgworthstown, Currygrane House.* The only two falls in 1884, exceeding an inch in 24 hours occurred in the last week of this month, 1·09 in. on the 24th, and 1·45 in. on the 31st.

XXII. *Clifden, Kylemore.* Mostly wet and stormy, not good for farmers.

XXIII. *Belfast, New Barnsley.* Very fine, and open; ground quite dry, and springs not affected by rainfall.—*Bushmills.* Stormy and wet; rainfall 23 per cent. above the average.—*Ramelton, Killygarvan.* Rather wet, although the rainfall was only ·73 in. above the average; temp. about the average.

NOVEMBER.

I. *Muswell Hill.* Rainfall little more than three quarters of the average for 12 years. The first week was wet, the remainder dry, only very small amounts of R being recorded.—*Great Stanmore.* Rainfall somewhat below the average. The first nine days were wet, followed by a very dry period of 20 days.

II. *Croydon, Addiscombe.* The tenth dry month in succession, and the dullest November for eight years.—*Hythe.* Remarkably fine. Delivery of springs exceptionally short.—*Wrotham, The Elms.* The month was very dry, so much so that in many places there was a dearth of water. Remarkable absence of fogs.—*Keston Tower.* A remarkably fine month, notable for absence of wind and R, not a single foggy day; very mild until the middle, afterwards frosty. The country suffered much from drought.—*St. Leonards.* A mild and cloudy month until the latter part, when the weather became colder; 65 hours of bright sunshine were registered.—*St. Lawrence.* Very dry; the rainfall 3·16 in. below the average of 16 years; very mild till the 17th, after which day there was frost on the grass almost every night till the end of the month.

III. *Buntingford, Throcking Rect.* Bright and dry with very little fog; the temp. was somewhat below the average; mean temp. 40°·8. *Winslow, Addington.* A very fine month, the max. temp. being above 50° on each of the first 10 days; from then until the end of the month it was colder. Rainfall much below the average.

IV. *Ipswich, Bishop's Hill.* Unusually dry; rainfall less than half the average.—*Weybread Vic.* [*Harleston*]. The rainfall, though not large in quantity, was fairly equally distributed throughout the month; with the exception of the last week, in which some S fell, the weather was remarkably mild.—*Diss.* An open, pleasant month till the last two days, in which there were frequent and heavy S showers with wind, the S remaining on the ground. Weather favourable for winter farming operations, and young crops looking well.

V. *Calne, Compton Bassett.* The early part was rainy; the middle and latter part dry and cold.—*Torquay, Babbacombe.* Dry, very dull, and rather cold, with a small range of temp. and pressure. Rainfall less than half the average. Showery weather prevailed till the 9th and after the 27th, but it was generally dry from the 10th to the 26th. Warm weather prevailed till the 14th, but it was generally cold after the 16th. The ground was remarkably dry for the season. — *Sherborne, Stowell Rect.* A cold dry month.

VI. *Hampen.* The month opened with several wet days, but the middle was pleasant, with little rain, though somewhat colder, the wind being mostly E.; the month ended with R and S.—*Ross, The Graig.* The first week was wet; the last four or five days were snowy and drizzly. It was warm till the 12th, cold afterwards, with some very sharp frosts on grass.

VII. *Melton Mowbray, Coston Rect.* The first part of the month was mild, but the last week very severe, with a heavy fall of S on 30th. A dry month, for even at the end farmers had to cart water for stock, the ponds remaining empty, a thing unheard of in November.—*Ketton Hall* [*Stamford*]. Another dry month; it was also very dull, but very few fogs occurred. The wind was very changeable all through the month, and the temp. very low at the end.—*Horncastle, Bucknall.* Another very dry month, with temp. below the mean every day after the 14th.—*Nottingham, Strelley Hall.* A very dry, rather warm, but very dull month. Rainfall 1·50 in. below the average. From 2nd to 30th the heaviest fall of rain was ·18 in.—*Mansfield.* Another month of comparatively dry weather; rainfall 1·40 in. below the average of 14 years.—*Worksop, Hodsock Priory.* November was chiefly remarkable for its small rainfall, which was barely more than half that of any November in the preceding nine years, making the sixth dry month this year. Sunshine was also very deficient. Temp. about the average, being above in the beginning and below in the latter part of the month. A very favorable month for out-door work, but the dry weather hindered wheat sowing.—*Derby, Elvaston.* Fine and very dry, with considerably less fog than usual.

VIII. *Tarporley, Oulton Park.* In the early part, the weather was very changeable with a good deal of R; the latter part was frosty, and more seasonable.—*Macclesfield.*—Rainfall much below the average. The first half of the month was very mild and free from fog, scarcely any being seen until the 24th.

IX. *Wakefield, Stanley Vic.* The rooks revisited their nesting place on the 6th and were greatly excited as if they wished to commence breeding. A second crop of pears was gathered at Wakefield Hall, small in size, but fit to eat.—*Scarborough.* The first half mild and dry, but it was showery and cold after the 18th. Rainfall, 1·00 in. below average.—*East Layton* [*Darlington*]. Another dry month, beneficial for outdoor operations. Farm work very forward. Wheat coming up nicely, turnip crop a fair average. Water very scarce. Springs lower than can be remembered.

X. *Shap, Copy Hill.* Cold, dark, and foggy, with heavy S at the close.

XI. *Llechryd, Castle Malgwyn.* Drier than usual, though there were frequent showers.—*Douglas, Victoria Road.* A fine autumn month on the whole, the period from 7th to 23rd (except 12th) being remarkably fine, bright, and generally calm. Many plants still in bloom.

XII. *Dumfries, Crichton Inst.* Windy and wet for upwards of a week, after which there was a long period of dry calm weather, with frosty mornings and evenings; towards the end of the month the weather broke, and on 30th S fell all day. Mean temp. slightly below the average.—*Melrose, Abbey Gate.* Very dry and open, so that outdoor work progressed well. Mean temp. (35°·5) about the average; rainfall ·71 in. below the average. S.W. winds prevailed on 22 days, generally moderate in force.

XVI. *Dollar.* Dull, rainy, and stormy, at the beginning of the month; mild and fine about the middle; frost, and gales at the close. —*St. Andrews, Newton Bank.* An uncommonly fine month; very little R after the 6th; very hard frost on 29th and 30th.—*Balquhidder, Stronvar.* The temp. was medium throughout. A good deal of S on hill tops, but on the whole, a good month for farmers.

XVIII. *Lochbroom.* The early and latter parts of the month were very stormy, wild, and severe; but the middle was beautiful.—*Loch Shiel, Glenaladale.* A fine winter month. The rainfall of the first 12 days (12·86 in.) was extraordinary; from the 2nd to the 9th was a very stormy week with variable temp. and a good deal of S on the hills. The remainder of the month, with the exception of two wet days (26th and 27th) was fine, calm, and dry, inclining to frost.

XIX. *Watten, H.R.S.* Open and mild till the last week, which brought S storms, succeeded by hard frost.

XX. *Dunmanway, Coolkelure.* Unusually free from gales. With the exception of the 11th the R generally fell at night, and the days were fine and genial.—*Nenagh, Castle Lough.* Far the largest portion of the rainfall of the month fell in the first 12 days, the remainder of the month being dry with a few frosty nights.—*Miltown Malbay.* The first eleven days were boisterous and stormy, with much T and L. The remainder of the month was dry, calm and sunny, with slight frost at night. On the whole, a fine November, good for agricultural pursuits.

XXII. *Ballinasloe, Kilconnell.* Exceedingly fine and dry. Except at the beginning there was most unusually bright and sunny weather.—*Clifden, Kylemore.* On the whole a fine winter month.

XXIII. *Belfast, New Barnsley.* There was no appearance of winter weather till the 28th, it was more like spring.—*Ramelton, Killygarvan.* With the exception of 8 or 9 days at the beginning, and a few days at the end, November was a fair month. Rainfall a little more than an inch above the average; temp. below the average.—*Bunerana, Rockfort.* Wild, wet and stormy, with sudden changes of temp. making it unhealthy and trying.

DECEMBER.

I. *Muswell Hill.* After five consecutive months with rainfalls below the average, December had an excess of nearly an inch. The first 20 days were very wet, 3·37 in. out of the total 3·44 in. falling during that period.

II. *Dorking, Abinger.* December came in with some most refreshing rains, which were very much needed, a good many people being short of water; these continued till the 20th and the remainder of the month was fine and dry.—*Reigate, Holmfels.* While there was no actual failure of the water supply in Reigate and the immediate neighbourhood, the wells and streams have been certainly low, and in the lower district around, and on clay lands, the deficiency was very serious.—*Croydon, Addiscombe.* Extremely dull, the first month since January in which the fall of rain was at all above the average, and the most windy December for at least 20 years.—*Hythe.* Very wet and squally. Springs were extremely low, but at the end of the month shewed a slightly increased delivery.—*Sevenoaks, Riverhead Vic.* The springs under the greensand in some places in this neighbourhood flowed more sluggishly than for many years.—*Keston.* A fairly seasonable month; wet until the 20th; very little frost, but cold E. winds during the latter part of the month.—*Littlehampton.* More R fell than during any other month of the year.—*Lewes, Iford.* The first three weeks were rough and wet, but the weather afterwards was dry and cold. Very little sunshine.—*St. Lawrence.* Constant R till the 20th then dry, dull, sunless weather.—*Emsworth, Redlands.* The weather of the first three weeks was very rough and extremely warm; the end of the month was dull, gloomy, and decidedly cold, and there was a marked absence of sunshine throughout the month. So dry was the ground from continued drought that the R made no appreciable difference, and wells and streams were as dry as they usually are in summer, many stream-beds being quite dry. Gales on nine days.

III. *Buntingford, Throcking Rect.* The weather was fine and open, though S fell to a depth of 6 inches on 1st.—*Winslow, Addington.* A very open month, R being frequent in the early part; the latter part was dry with a very equable low temp., the sharpest frost occurring on the last day.

IV. *Harlow, Sheering.* Deeember was the 13th consecutive month with rainfall below average, the deficiency this month was, however, only ·17 in.—*Ipswich, Bishop's Hill.* Rainfall ·29 in. above the average. Slight frosts occurred on several nights, but there was very little S. —*Weybread Vic.* [*Harleston*]. The R was fairly distributed, and there was no heavy fall; the end of the month was cold and dull, but dry; no severe frosts.—*Diss.* The first fortnight was wet, but there was S only on the first day. Some rough weather occurred on the 7th and 20th, and the last week, with the exception of the 30th, which was a splendid day, was gloomy, cold, and sunless, with sharpish frosts at night. Winter flowers were abundant in the gardens. Severe colds and sore throats prevailed.

V. *Calne, Compton Bassett.* The first 19 days were rainy, the remainder dull and hazy, with frequent night frosts, but no S to lie on the ground.—*Torquay, Babbacombe.* Dull, gloomy, windy and rather cold, with an average rainfall. R fell every day from November 27th to December 20th, but no R was measured after the 20th.—*Brampford Speke.* The weather was very variable, with scarcely 24 hours alike. Rain fell on the first 21 days, none on the last 10.

VI. *Ross, The Graig.* The first half was warm, the remainder cold; but although there were eight nights on which frosts in air occurred, the average min. for those nights was only 31°·2. The ground at the close, notwithstanding the wet at the commencement, was very dry, and springs were low. The range of temp. was very small, especially so from the 23rd to the 29th.

VII. *Melton Mowbray, Coston Rectory.* Constant R during the first three weeks, not very heavy, but only two dry days.—*Ketton Hall* [*Stamford*]. Much dull weather, and although R fell on 20 days, yet the total fall was so small that it may be called a dry month. Temp. not low, and the range on many days very small indeed. —*Horncastle, Bucknall.* Temp. above the average during the first half, and below it in the second half, but on the whole it was a mild month with very little frost.—*Nottingham, Strelley Hall.* Temp. about 2° above the average. The fifth month in succession with rainfall considerably below the average. The weather was showery up to

the 20th, there being only three rainless days up to that date. From 20th to the end the only rain collected was ·01 in. Only 7 per cent. of the possible duration of sunshine was recorded.—*Mansfield.* Rainfall ·54 in. below the average, with an excess of rainy days; temp. seldom below 32°, but generally changeable and mild; high winds but no hurricanes, and a conspicuous absence of mists and fogs.—*Worksop, Hodsock Priory.* Up to the 19th very mild with strong W. or S.W. winds and an average amount of R. The rest of the month was cold, though without any severe frosts, light N. and E. airs and no R. Sunshine very deficient. Mean temp. 39°·1. Humidity 88. —*Derby, Elvaston.* Stormy, windy and very mild generally until the 19th; very dry and rather cold, but gloomy afterwards. Temp. 1° above the average. S.W. wind to the 19th, then N.E. and E. to the end of the month.

VIII. *Macclesfield.* The first part very wet, the middle stormy, and the last ten days dry and frosty, with a specially fine Christmas week.—*Liverpool, Walton-on-the-Hill.* The first three weeks wet and very mild, after which it cleared up and remained fine and seasonable until the end. Rainfall slightly above the average.

IX. *Scarborough.* The weather, with the exception of the second week, was raw and cold, but there was only one hard frost. Temp. was 1° above the average of 16 years.—*East Layton* [*Darlington*]. A favourable month, with a small rainfall. Ground in perfect condition, and work of all descriptions well forward. Springs, after being at almost the lowest ebb within living memory, beginning to feed.

X. *Barnard Castle, Whorlton.* Much wind in the middle of the month; hard frost at the end, with a slight covering of S on the ground. — *Elterwater, Woodlands.* Wet and mild until the 19th, afterwards frosts of moderate intensity; skating on Elterwater Tarn and Rydal Water at the end of the month.—*Shap, Copy Hill.* The early part very wet, with rather strong winds at times. From the 20th to the end the weather was seasonable; dry with hard frost.

XI. *Llanfrechfa.* A mild, still and calm month, with a few violent storms.—*Llandovery.* Rainfall the heaviest in December for several years.—*Lower Solva.* There were very few frosty days, and no S fell. The water supply was more scanty than for many years; many wells dried up that were never seen dry before.—*Llechryd, Castle Malgwyn.* R fell on each of the first 20 days, afterwards it was fine and frosty. There was a gale lasting from the 17th to the 19th in-

clusive, but no considerable damage was done.—*Douglas, Victoria Road.* R fell almost daily in large quantities until the 19th, but the remainder of the month was remarkable for fine and often bright weather. Many good roses, carnations, the lemon-scented cytisus (greenhouse variety) and beautiful veronicas were flowering in the garden at the close of the year.

XII. *Dumfries, Crichton Inst.* On the 1st the ground was covered with S, which, however, speedily disappeared, and the weather for the first half of the month was mild and showery; on 20th the ground was again covered with S, and frost continued with more or less severity until the end. Gales on four days.—*Melrose, Abbey Gate.* The mean temp. of the month (32°·2) was 2°·2 below the average; rainfall ·46 in. above it. Wind from W. or S.W. on 21 days. From the 2nd to the 19th it was stormy and wet; from the 20th to the 30th cold and dry.

XVI. *Dollar.* Dull, rainy, stormy weather prevailed at the beginning, but the end was beautifully fine and mild.—*St. Andrews, Newton Bank.* The month opened wet, and continued so up to the 15th; frost set in on the 18th, and continued till the close.—*Balquhidder, Stronvar.* The month was not cold, notwithstanding the great number of days (23) on which temp. fell to 32°·0. S fell to a great depth on the hills on the 15th and following days, and was still deep in places at the close, but sheep did not suffer much.

XVIII. *Lochbroom.* A constant downpour of R prevailed for the first 20 days of the month, the most dirty, disagreeable weather that can be conceived. The last ten days were delightful winter weather with S above and fine clean dry ground below.—*Loch Shiel, Glenaladale.* From the 1st to the 19th very stormy, cold, and wet, with T and L, H and sleet, and a good deal of S on the hills. From the 20th to the end beautiful and calm, but generally dull and not cold, but with an occasional slight touch of frost.

XIX. *Watten, H.R.S.* The first half, stormy with frequent gales; the latter half fine; but the temp. throughout most variable, constant changes from frost to thaw and *vice versa.*

XX. *Dromore Castle.* The first three weeks of the month were very stormy from N.W. and S.W., with much R and sleet; the latter part fine.—*Nenagh, Castle Lough.* The first 20 days very wet, but the last 10 days fine, with occasional slight frost.—*Newcastle West.* Very severe to the 20th, afterwards fine to the close. From 4th to 11th a succession of tempestuous days with L, H and sleet, wind in violent

gusts, generally from W.—*Kilkishen.* Mild, with the heaviest rainfall of any month of the year. No ice of any strength. Mean temp. 42°·7—*Miltown Malbay.* The first three weeks were very inclement, cold, wet and stormy, with much T, L, and H. The last 10 days were open and mild, with occasional light frosts.

XXII. *Clifden, Kylemore.* Very wet until the 20th, after which there was a little frost.—*Carrick-on-Shannon, Lawderdale.* From 1st to 20th wet and cold; from 20th to the end seasonable and dry.

XXIII. *Stewartstown.* Rainfall about the average; number of wet days above it.—*Ramelton, Killygarvan.* The first three weeks were wet and stormy, with low temp., but the latter part was fine with a few night frosts.

OBSERVERS' NOTES ON THE YEAR 1884.

ENGLAND.

DIVISION I.—MIDDLESEX.

HAMPTON WICK.—Rainfall of the year about two-thirds of the average, and number of wet days little more than half the average.

TEDDINGTON,—Rainfall just two-thirds of the average, and about half the total fall of 1879.

HAMPSTEAD, ROSSLYN.—A season of drought, but the rainfall of the year was about the average and gardens did not suffer. Many ripe strawberries gathered in November.

UPPER CLAPTON, THE COMMON.—With the exception of 1864, when the total was 18·47 in., the fall this year is the smallest recorded in 21 years.

MUSWELL HILL.—The total rainfall is about 20 per cent. less than the average of 12 years, and is the smallest amount registered in any year during that time, except 1874, when only 21·22 in. fell. In three months—January, June, and December—the average was exceeded. March had very nearly its average, while in the other eight months the fall was very deficient, August and October having less than half their average. The number of days on which R fell was also small.

HAREFIELD PARK.—The smallest rainfall registered in any year since 1874, when 20·40 in. fell.

ENFIELD, OLD PARK.—Well ran dry, for the first time since 1868.

DIVISION II.—SOUTH EASTERN COUNTIES.

HASLEMERE.—Rainfall 9·35 in. below the average of 12 years and the smallest during that period, that nearest to it being 1873, when 29·90 in. fell.

EWHURST.—Wells very low in September, October, and November

Quite dry in many places, where wealden clay prevails. A well in the greensand gave a good supply.

WITLEY, FERNSIDE.—The driest year on record since the gauge was erected in 1872, the fall of every month except January and March being below the average.

HOLMWOOD.—Rainfall greatly below the average. Much trouble experienced from failure of wells, farmers having to carry water from distant ponds.

DORKING, FIR TOR.—The driest year since 1870, and probably long before, but no great complaints of wells or springs failing.

BROCKHAM VIC.—Drought becoming very serious before the heavy R of November 30th; ponds mostly dry, and wells yielding very little. A shallow well in the vicarage garden, never empty before, was perfectly dry up to the end of November.

GUILDFORD, GUILDOWN.—Rainfall about eight inches below the average of 13 years.

FARNHAM, THE BOURNE VIC.—The best year for hops for many years. A dry hot summer, May and July being the driest months.

REIGATE, RINGLEY MEAD.—The driest year since observations were commenced in 1873, the previous driest being 1874, when 25·75 in. fell.

REIGATE, DOODS.—There was a deficiency of R in every month except September and December, especially in May and November. Failure of wells was general, but as the borough is supplied by two water companies, one from the chalk and one from the greensand, no inconvenience was felt. Watercourses and springs had not begun to run at the close of the year, although in some years they run all the summer.

BEDDINGTON.—The year was persistently dry, with high mean temp.

CROYDON, ADDISCOMBE.—The year 1884, taken as a whole, was singularly warm, rather dull, and extremely dry, with a dry atmosphere and winds of about average strength.

SANDHURST RECTORY.—In August many wells were very low, and a few quite dry, and in November there was much sickness owing to the bad quality of the water in some of the wells, and in the ponds which had to be resorted to.

TENTERDEN, SUMMERHILL.—The driest year ever recorded. The river Rother which, in this part, is always shallow and narrow, was nearly dry, and most of the ponds and many wells were quite dry.

In many places cattle had to be fed, there being no grass; sheep, in spite of dry weather, did well. Crops of hay and roots were very short, but hay was remarkably good; wheat did not suffer, oats and barley were rather short in straw.

BENENDEN.—There was a dry season for sowing in March and April, and the rains on April 26th and 27th, and those early in June were very serviceable. The absence of TSS was remarkable, none being at all severe or accompanied by heavy R, except those of July 4th, 5th, 24th, 25th and 27th; the recovery of hops from blight was partly attributed to these welcome storms and partly to the three weeks of hot weather in August. Grass generally dried up till after the wet fortnight, August 27th to September 8th, which yielded six inches of R, and brought the total for the year above both 1873 and 1874.

TENTERDEN.—The driest year since 1871, not so dry, however, as 1870 and 1864. January and July had about their average fall, September more than 2·00 in., and December ·75 in. above the average; the chief deficiencies were in May, August, October and November. There were fewer heavy dews and fogs than usual; only three days S, and 36 nights frost; on 27 days the temp. rose above summer heat, and on 10 (in August) above 80°. There were nine absolutely rainless weeks, and 31 in which ·25 in. or less fell. The absence of high wind was remarkable.

CRANBROOK, HARTLEY.—The driest year during a period of 19, yet it had by far the wettest week during the same time, no less than 5·03 in. falling between September 1st and 6th.

GOWDHURST VICARAGE.—One of the driest years since 1864, water tanks all empty and many wells dry. Fruit ripened well, and there was a good crop of sound potatoes.

TUNBRIDGE WELLS, CAMDEN PARK.—May and August were unusually dry months, August was also very hot with a large amount of sunshine, and vegetation was much burnt up; the longest period of absolute drought was only 15 days, viz., July 28th to August 13th, but in the 29 days, July 28th to August 27th, only ·09 in. of R fell. The most notable occurrence of the year was the fall of 2·12 in. of R in 12 hours on September 3rd.

TUNBRIDGE WELLS, ETHERTON HILL.—The springs and wells were lower than for many years previously, indeed many wells were dry.

MAIDSTONE, LOWER TOVIL.—The flow of the Loose stream, which

passes close to this station, was much smaller than for many years past. The river Medway was very low, and all through the summer and autumn the water was much clearer than usual.

SHELDWICK VICARAGE.—Springs all very low, even at Christmas; water in a well 170 ft. deep, 3 or 4 ft. lower than usual.

CANTERBURY, BURGATE ST.—A remarkably dry year, no fall of one inch in 24 hours.

SEVENOAKS, RIVER HILL.—A very dry year, the only heavy rainfall being from August 30th to September 6th, during which period 3·96 in. fell. Springs were very low during the autumn, and had not attained their normal flow at the close of the year.

AYLESFORD, PRESTON HALL.—Vegetation suffered from want of R during the summer months, the fall being insufficient to penetrate more than a few inches.

WROTHAM.—The town is supplied from wells in the chalk, many of which failed, and two (100 feet deep) continued dry till the close of the year. In neighbouring parishes there was great distress, and water was carted considerable distances and sold at ½d. the pailful.

OSPRINGE, LORENDEN.—A strong spring issuing from the Chalk Hills, near this station, which ordinarily flows about four inches deep in a 4 ft. channel, stopped, although it had not previously failed for eight or nine years.

KESTON.—The year was remarkable for its dryness, especially in the autumn. Water was so scarce that carts came daily from distances of six and eight miles to get it from two large ponds on the common, an incident which had not previously occurred since 1868.

RAMSGATE, THE VALE.—The rainfall of the year was scarcely three-fourths of the average (nine years), and the number of rainy days was 19 below the average. There was very little frost, and S only once—on December 1st.

MARGATE, APSLEY HOUSE.—Rainfall about six inches below the average, and number of rainy days 30 below the average.

BECKENHAM, FOXGROVE.—The smallest rainfall, and number of rainy days, since 1870. The heavy falls of June 5-6, July 9-10 and 24-28, August 27 and 30, and September 4, were most timely, and prevented the ground being so much parched as in many recent seasons with greater aggregate rainfall.

ELTHAM GREEN.—The driest year since observations were commenced, in 1869, the driest period being from July 30 to August 26, in which time only ·11 in. of R was registered.

CROSSNESS.—Rainfall more than nine inches below the average of 22 years, and the smallest in any year during that period.

CHICHESTER, WESTGATE.—Rainfall 7·30 in. below the average of 10 years. Many of the surface wells were dry, and much inconvenience was occasioned. Deep wells in the chalk were also low.

ARUNDEL, PATCHING.—A remarkably dry season, with an absence of the usual S.W. gales to which the district is subject in spring and summer.

MIDHURST, COCKING.—The supply of water in this district was lower through the months of September, October, and November than can be remembered by the oldest inhabitant. In November wells which had never been known to fail were dry, and the miller in Cocking was for two months unable to grind, except for about one hour of the 24, although his mill is situated on a stream issuing from the South Downs, which usually gives a plentiful supply of water at all seasons. Crops of every description were excellent.

HORSHAM.—From February 1st to August 31st the rainfall was only 10·04 in., resulting in a great scarcity of water in shallow wells, especially north of the town on the anticlinal axis of the Weald at a surface elevation of 245 ft. above Ordnance datum. At the Waterworks 177 ft. above Ordnance datum with a well dug 75 ft., and bored 45 ft., total 120 ft., or within 57 ft. of Ordnance datum, there was no deficiency. Also at the Railway Station a well dug to within about 90 ft. of Ordnance datum showed no deficiency.

BRIGHTON, BLATCHINGTON ROAD.—A magnificent summer, with much sunshine. Rainfall below average.

FALMER.—Springs very low at the end of the year. At the end of November most wells were dry, but the December R raised them a little. Rainfall 6·83 in. below the average of 25 years.

LEWES, IFORD.—All wells, springs and streams very low, water in many cases having to be carted.

WARBLETON RECTORY.—There was a great want of water in the wells during the autumn, many drying up entirely; the streams did not cease to flow, but were very low. The scarcity of good water seems to have caused throat complaints.

NEWICK.—All wells in this district were very low, many quite dry, some of which were never known to fail before.

UCKFIELD.—The driest year in Sussex since 1858, the rainfall being nearly 7 in. below the average of 40 years. The heavy R in September greatly relieved the drought of the two previous months,

but the underground springs did not commence flowing until the continuous rains of December.

MARESFIELD, FOREST LODGE.—The rainfall during the year 1884 was 5·77 in. in defect of the average (31·93 in.) of the previous 28 years. During the latter half of the year there was a great deficiency of water in this neighbourhood, and at Nutley to the north and Maresfield to the south people were carting water from a long distance and paying a halfpenny a pail for it.

As attempts are still being made to impose upon the ignorant by the categorical assertion that years of plentiful sunspots are those in which rainfall is greatest over the whole earth, I revert to this subject for the purpose of calling attention to the fact that as far as Sussex (which presumably is situated in part of the earth) is concerned, this assertion is utterly false. I showed this in my report for the year 1882, and I would now emphasize what I then said, by pointing out that, according to the Report of the Astronomer Royal to the Board of Visitors of the Royal Observatory, 1884, June 7, p. 8, 1883 was the year of maximum sunspots. But, as is of course well known, there was a distinct deficiency of R in that year, while in the one which has just concluded (during which numerous splendid groups of sunspots have appeared, some of them visible to the naked eye), the deficiency has been much more marked.

Not only has the R been reduced in 1884 below the average to the extent of 18 per cent. (or nearly one-fifth) of the whole amount, but the decrease in the number of days on which it has fallen is equally remarkable, it having been registered on 181 days only, as against 232 in 1883 and 222 in 1882. Heavy gales characterized the month of January, and to a less extent that of December. The wonderful pink glow in the sky, which attracted such attention in 1883, persisted at intervals through the year. It was very fine in January, and on March the 21st suffused the starlit sky. Without occupying space with a list of the occasions on which I observed it, I may just say that at 9.45 p.m. on December 3rd, a faint though decided reddish glow was perceptible just on the S.W. horizon.

CROWBOROUGH, THE OBSERVATORY.—By far the driest year since observations were commenced 14 years ago; the next driest was 1871, when 32·12 in. fell.

TICEHURST.—A dry year with little S and slight frosts. Remarkable sunsets in spring and late autumn. Ponds lower than they had been for many years, especially in autumn.

WITHYHAM, LEYSWOOD.—A very hot and dry summer, with great scarcity of water, though springs did not fail totally. Fruit ripened to great perfection.

FOREST ROW, ASHDOWN COTTAGE.—The summer drought did little harm to vegetation, but dried up all shallow ponds.

EAST GRINSTEAD.—A dry season, with streams very low, and many wells dry, some of which had never been known dry before.

SANDOWN.—Carisbroke Castle well dried up during November; its depth is about 250 feet, and it usually has about 70 feet of water in it. It is reported that it has not been dry before for 140 years.

WEST COWES, HOLMWOOD.—Rainfall of the year 6·44 in. below the average of seven years, and ·54 in. below the total for 1878, which was the driest of those years. The three months, March, June and December, had falls more or less above the average.

BOURNEMOUTH, TREGEW.—The rainfall of April and May was unusually small. The autumn fall was also very small, especially in November, which is accounted for by 22 days of N. or E. winds. The December fall was heavy, especially in the first 19 days.

CHRISTCHURCH, MUDEFORD.—The rainfall was in excess of the average of the previous 15 years till October, at the end of which month it was below the average. The rainfall for the whole year was 2·47 in. below the average.

CHRISTCHURCH SCHOOL.—Remarkable dryness was the characteristic of the year. Springs did not suffer so much as in some districts, a deep bed of gravel overlying the clay; nevertheless in October two or three wells and public pumps ran short.

PORTSMOUTH, CLOSEWOOD, COSHAM.—The rainfall was deficient in the months of April, May, June, August, October and November. There was great local scarcity of water in streams, ponds and wells. The rainfall for the three months, April, May, and June, was only 2·91 in.

EMSWORTH, REDLANDS.—A hot dry summer, warm autumn and winter, except the last two weeks of the year which were very cold. Many wells, springs, and streams ran dry, some of which have not been known "in memory of man" dry before, and were still in the same state at the end of the year. There was an absence of violent gales, and there were very few TSS. A poor hay crop. Leaves remained on trees, especially oaks, unusually late.

SOUTHAMPTON, NETLEY.—A very dry year. In the 21 years that rainfall has been recorded, only four have shown less—viz., 1864 19·54 in., 1867 25·22 in., 1870 18·47 in., 1873 24·79 in.

ALRESFORD, OVINGTON.—Many wells failed. On the high downs people were glad to get rain water for all domestic purposes from storage ponds. Rainfall of the year, 9·52 in. below the average, October had a great deficiency, but January, March and December were all wet.

ALTON, EAST TISTED RECTORY.—Rainfall about 5 inches below the average; village wells all dry in the autumn, which seems remarkable as the rainfall of 1883 was above the average. Hay crop light but excellent, cereals a fair average and excellent in quality, hops superb.

EAST WORLDHAM.—The wells, varying from 83 ft. deep, failed for the first time within the memory of the oldest inhabitant, some filling again before the close of the year. But one about 80 ft. deep remained still dry, and another about 84 ft. deep yielded only a little water, which was pumped out in a few minutes each day. A spring below the hill did not fail.

MICHELDEVER, NORTHBROOK.—The level of water in the chalk fell in the autumn to a lower point than has been noted since 1870, and, though rising slightly in consequence of the December rainfall, was much below the midwinter average at the close of the year. The surface-water ponds did not, however, get so empty as they have done in years of much heavier rainfall.

ANDOVER, RED RICE.—Many of the wells in this locality ran dry, and the mill-stream was lower than it had been for 30 years previously. Rainfall less than in any year since 1870, when only 22·75 in. fell.

ROTHERWICK, TYLNEY HALL.—Rainfall 6·63 in. below the average of the preceding 10 years, and 2·18 in. below 1874, the driest year of that period. Wells and ponds were empty, and springs and streams unusually low; the greatest scarcity of water remembered.

BLACKWATER, HURSTLEIGH.—The rainfall was very much below the average, being the lowest registered since the record commenced, in 1876. Only on five days did the fall exceed half an inch, and the greatest fall in 24 hours was only ·87 in. on September 3rd. Some wells were unusually low, and one at least failed in the autumn. The Blackwater river, between Sandhurst (Berks) and Yateley (Hants), was unusually low at the close of the year.

HECKFIELD, PARK CORNER.—The driest of the 13 years recorded here. The well failed for the first time on November 28th, but began to fill again after November 30th.

WINCHFIELD, HECKFIELD PLACE.—The year was notable for the drought in May and October, and a total rainfall several inches below the average.

NEWBURY, GREENHAM.—For two or three months the water in the well was 10 feet below its usual level, but it resumed its ordinary height before the close of the year.

HUNGERFORD, DENFORD PARK.—The springs were lower and the land was drier at the close of the year than at the same time in any previous year within observer's memory.

READING, EAST THORPE.—Rainfall 6·14 in. below the average of 10 years.

LAMBOURNE, THE LABURNUMS.—The stream of the Lambourne river ceased running on the 13th of October, and on the 19th the bed of the river (chalk) was dry. During the month of December several wells dried up, with every prospect of more doing so. According to tradition there was a drought here in 1855, when only three wells yielded water, since which some of the wells have been deepened.

LONG WITTENHAM.—The driest year since 1874, the rainfall being six or seven inches below the average. Wells in gravel for some time ran short, and a well 40 ft. deep, in the greensand, which has been regularly measured since 1868, was 4 ft. 6in. lower than last year, and lower than it had been previously since 1871. A short supply seems likely for next year.

DIVISION III.—SOUTH MIDLAND COUNTIES.

WATFORD, WANSFORD HOUSE.—Rainfall considerably below the average, being the first year since 1874, in which the average has not been exceeded. The fall in December, the wettest month, was five and a half times that of May, the driest. The heaviest fall on one day was 1·10 in. on the 6th of June, nearly double that of the whole of May. Rivers were low, but deep wells in the chalk were scarcely affected.

GREAT BERKHAMPSTEAD, HIGH STREET.—The driest year since 1864, when 19·82 in. fell.

WARE, MUCH HADHAM.—The driest year since 1870, when only 18·66 in. fell. It is curious to note that nearly all the wet days were either at the beginning or end of the month. For instance the 16th day of the month was only once wet, the 20th and 22nd also were

only once wet. The streams in the neighbourhood were for several months lower than they had been for many years.

WELWYN, DATCHWORTH RECT.—The first year since 1876 with less than the average rainfall. The following dry periods occurred: March 12th to 30th, 19 days; May 13th to June 3rd, 22 days; June 10th to July 8th, 29 days, with ·23 in. of R on three days; July 30th to August 23rd, 25 days, with ·28 in. of R on four days; September 9th to October 7th, 29 days, with ·15 in. of R on three days. Hazy weather very frequent.

BENNINGTON LODGE.—A hot summer, water very scarce, ponds lower than can be remembered, grass burnt up on gravel soil. Bloom beautiful but destroyed by late frosts, and fruit scarce; autumn tints magnificent.

ROYSTON.—The driest year since 1864; water supply shorter than for many years previously, but it never failed.

LANGLEY.—The smallest rainfall recorded since observations commenced in 1872; ground at the end of the year still hard and dry at a depth of two feet. January and December were the wettest months.

SLOUGH, UPTON PARK.—Rainfall much below the average; the persistency of fine weather, under adverse symptoms, such as low bar., threatening clouds and S.W. winds, was very noticeable. Some of the surface wells ran low.

HIGH WYCOMBE.—In consequence of the short autumnal rainfall the stream here was exceedingly low, and various springs and wells failed which are not remembered to have done so previously.

WINSLOW, ADDINGTON.—The smallest rainfall since records commenced in 1871. The dry season was very beneficial to the land, which worked remarkably well.

STONY STRATFORD, THORNTON.—The rainfall was the least for 16 years; but cattle did well. In 1874, 20·10 in. fell.

WOBURN SANDS, SANDYMOUNT.—The greatest rainfalls occurred in January, July and December, July (3·64 in.) being the wettest. During 21 days in March only ·09 in. fell; from May 12th to June 4th only ·22 in. fell.

THAME, ASTON ROWANT.—During September most of the field ponds and many wells were dry, and even at the close of the year springs were giving less water than for ten years past.

OXFORD, MAGDALEN COLLEGE.—A very hot summer and dry autumn, many wells being dry for the first time within living memory.

STANTON ST. JOHN'S.—Springs were lower at the end of the year than during many previous years.

STRATTON, AUDLEY PARK.—The smallest rainfall since observations commenced, 20 years ago.

STEEPLE ASTON.—There was no want of water in this immediate neighbourhood, except in the case of one farm on high ground.

BANBURY, BLOXHAM GROVE.—The spring seeding required a great amount of labour, owing to the heavy rains of previous years and the absence of frost. Hay was much injured by the July rains; wheat and spring corn were secured in excellent order; wheat slightly above the average, barley below it. The shallow wells were very deficient in water, and many springs were dry, but the deeper ones were not much affected.

NORTHAMPTON, THE HOLLY'S.—The town was on short supply of water during a great part of the year—from 7 to 10 in the summer months, and 6 to 12 at the end of the year.

BRIXWORTH.—A fine dry spring; the early part of June rather cold, the latter half very hot. The heat at the beginning of July was intense, and there was some very hot weather in August; a fine autumn and good seed-time for wheat. On the whole, a fine and dry year.

THRAPSTONE, HARGRAVE.—The dry season was very favourable for the cultivation of all clay soils, and the produce, as a rule, was good in quantity and quality. The amount of R and number of wet days in July, although injurious to the wheat crop, was very beneficial to the grass and root crops. All farm work was in a very forward condition at the close of the year, though springs were very low, and water for the cattle had to be carted considerable distances.

KETTERING.—Rainfall six inches below the average of 20 years, and the smallest since 1864, when only 17·65 in. fell.

OUNDLE, VINE COTTAGE.—A very dry year, so many wells never having been known to fail before, though the river did not fall so low as might have been expected. A new well has been bored to a depth of 70 ft. without yielding water.

MAXEY VICARAGE [MARKET DEEPING].—From May 16th to June 4th, 20 days, no R fell; from November 30th to December 12th, 13 days, R every day. On no day was there a fall of one inch, and even half an inch and upwards, fell on only six days.

ST. NEOTS, TETWORTH HALL.—Water very scarce, all the field ponds being dried up, yet the grass was good all the summer.

ST. NEOTS, WARESLEY.—Rainfall 7·24 in. below the average of 20 years, but not so small as in 1870, when only 15·47 in. fell.

AMPTHILL.—The smallest number of rainy days recorded since the register commenced, in 1871, and the smallest rainfall, with the exception of 1874, when 17·01 in. fell. No R fell between May 14th and June 5th.

BEDFORD.—Much scarcity of water was felt in some places, only 6·90 in. of R having fallen during the first seven months. Reservoirs have not been lower since 1870. Percolation (by Dalton gauge) through 2 ft. 6 in. of soil of medium water-holding power, 5·93 in. [For monthly details see *Met. Mag.*, May, 1885].

TEMPSFORD HALL.—Rainfall the smallest in any year since observations were commenced in 1873, but in 1874 the fall was only 17·55 in.; rivers, ponds, brooks, and wells all very low, and some ponds remained dry at Christmas.

CAMBRIDGE, FULBOURN ASYLUM.—A remarkably fine and dry year, with a marked absence of wet days, the R mostly falling in short heavy showers. The water supply continued good and plentiful, though the water level in the well sank about four inches.

CAMBRIDGE OBSERVATORY.—The number of days on which sunshine was recorded was 302, the total duration being 1,463 hours.

QUY HALL.—The small amount of R seriously affected many of the wells in the village, some of them becoming dry and remaining so to the end of the year, which is most unusual. All the springs very low.

MARCH.—Rainfall 9·72 in. below the average of the preceding eight years.

WISBECH, COLDHAM HALL, ELM.—A most uniformly fine year; no winter frosts, very fine dry spring, and grand hay time, the only drawback being the severe TSS in July, which prostrated corn crops and rendered harvest difficult. It is noteworthy that in no month except July did the R exceed two inches.

DIVISION IV.—EASTERN COUNTIES.

LEYTON OBSERVATORY.—Remarkably dry. Several ponds well known to the observer for the last 20 years as always containing water, were for months perfectly dry; the well known skating resort the "Eagle Pond," Snaresbrook, was lower than it had been known previously for 50 years, and a large portion of bog in Epping

Forest was passable all the summer and autumn. Ground frosts were frequent in June and August.

MALDON, NORTON HALL.—Rainfall 6·65 in. below the average of 13 years. Wells did not fail, but the water supply was very short at places dependent on rainfall.

CHELMSFORD.—Rainfall 6·40 in. below the average of 17 years, and the smallest since 1868, the next smallest being 18·37 in. in 1870.

CHELMSFORD, ROXWELL.—A great many wells failed during the summer and almost all ponds dried up.

HARLOW, MOOR HALL.—Rainfall seven inches below the average of 20 years.

DUNMOW, HIGH RODING.—Rainfall 7·49 in. below the average of 19 years, and number of rainy days 28 below average.

DUNMOW, NEW STREET.—An exceedingly dry year in this neighbourhood. Root crops almost a failure. Ponds dry, wells very low and some dry, a circumstance not remembered by the oldest inhabitants.

BRAINTREE, BOCKING.—The smallest rainfall for 30 years, excepting that of 1864, which was 16·94 in.

SAFFRON WALDEN.—Rainfall 11·07 in. below the average of ten years.

IPSWICH, ORWELL PARK.—Although on level ground the light soil was very dry to a considerable depth, no failure of a well in the neighbourhood is known to have occurred; in 1868 there were several. Of the very few natural streams, not one has been dry, although lower than in some seasons.

IPSWICH, BISHOP'S HILL.—A dry year, the rainfall being just one-fourth less than the average. May and June were very dry, and September and December were the only months with a rainfall above the average.

ASH BOCKING.—After the drought of the earlier months there was a short supply of water in ponds, &c., but this was remedied in October and December.

BURY ST. EDMUNDS, DRINKSTONE PARK.—The smallest rainfall since 1864, when 16·44 in. fell; the next smallest was 18·34 in. in 1874—periods of 10 years' interval. Ponds, &c., were as low at the end of the year as is usual at midsummer.

NEWMARKET, MOULTON RECTORY.—Very dry. Rainfall only about two-thirds of the average. There was only one fall exceeding half an inch in 24 hours during the year.

BURY ST. EDMUNDS, WESTLEY.—The water in the deep chalk wells here was, at the end of the year, 6 ft. below the average level, and ponds and streams were very low. R much wanted for next summer's supply.

IXWORTH, WALSHAM-LE-WILLOWS.—Unusually dry during the first six months; there was an abundant harvest, but the hay crop was very scanty.

LOWESTOFT, BRYN-Y-MOR.—It is remarkable that four months had total falls of less than 1 in., while the fall of September (4·61 in.) is almost unparalleled. No R fell between June 18th and July 9th.

DISS.—A mild spring, a warm, dry summer, a bright autumn, and mild, pleasant weather till the last week of the year (which was cold and sunless), contributed to the making up of a right pleasant year. The hay, though not a large crop, was got up in beautiful order, and the corn harvest was completed in most favourable circumstances, the yield being good, though hardly remunerative, owing to low prices. The rainfall was very small, and the drought during the summer months caused a partial failure of some of the autumn fruits, but figs and out-door grapes were abundant, and in great perfection.

BERGH APTON.—Exceptionally dry, though the great rainfall early in September and October was the largest registered in so short a time, for many years.

NORWICH, POSTWICK.—Exceptionally dry. The rains of September 4th (1·66 in.) and October 10th (1·65 in.) were the heaviest ever recorded here, the bulk in each case falling within 12 hours.

NORWICH, THORPE HAMLET.—The year was one of singular beauty; drought and unusual warmth were its prevailing characteristics. A very mild winter, a summer-like March; a great prevalence of N.E. wind during April; a fine hot summer from May 10th to the end of September; a fine autumn, and no severity even in December. The heavy rainfalls of September 4th and October 10th are almost unprecedented, particularly that of September 4th, when in 24 hours the fall was 2·09 in.

MATTISHALL.—Generally dry, and pits were very empty in September and October; the principal heavy falls were due to local T showers.

SPROWSTON, OAK LODGE.—Very dry; though R was registered on 178 days, on 35 occasions it did not exceed ·01 in.

EAST DEREHAM.—Remarkably dry, forming a great contrast to several previous years. Rainfall about 5 in. below average. The

temp. in July and August was unusually high, and there were many days of high temp. in June and September; the finest summer since 1868.

NORTH WALSHAM, WORSTEAD.—The smallest number of wet days since 1868, when 130 were registered.

WELLS-NEXT-THE-SEA.—A splendid spring; a magnificent summer (probably the finest on record) and a beautiful autumn. During the later weeks of the year zymotic diseases were very prevalent.

DIVISION V.—SOUTH WESTERN COUNTIES.

MAIDEN BRADLEY.—In October and November the well water supply became very short, and in some instances wells were dry.

TROWBRIDGE, STEEPLE ASHTON.—The finest and driest year for a long time, and at its close many wells were either exhausted or much reduced in their supply.

TROWBRIDGE, WINGFIELD.—Up to the end of November ponds had less water than they have had for many years.

PEWSEY.—Great deficiency of water supply and failure of wells; streams also very low, continuing so at the close. Crops exceedingly good.

BISHOP'S CANNINGS.—The driest year recorded, though 1874 had scarcely half an inch more R. Several wells were dry, a very unusual thing here. The well at Shepherd's Shore, which supplies Devizes, is 123 ft. deep with a 12 inch bore hole 25 ft. lower; the water level at the end of the year was 96 ft. from the surface while at the beginning of the year it was only 63 ft. In 1880 the well was lowered 13 ft., and the bore hole made, but even before that, the water had never been so low as it was in 1884.

MILDENHALL.—The driest autumn since 1856. Springs at Christmas lower than had ever been known, and still getting weaker. Ponds were well supplied by R in the early part of December.

CALNE, COMPTON BASSETT.—Winter months mild and open; spring ungenial with frequent night frosts; June wet, July and August bright and sunny; the autumn fine and dry, causing the springs to be low, and great scarcity of water till the constant rains of the first half of December.

BROAD HINTON.—Unusually dry with prevalence of E. winds. There was great scarcity of water on the Downs, a similar deficiency

not having been known for 30 years. Most wells were dry at the end of November.

WEYMOUTH, LANGTON HERRING.—Rainfall less than in any of the preceding nine years, and 6·61 in. below the average. The months of August, September, October and November, were remarkably dry, and several wells in the neighbourhood, which had never been dry before, became exhausted.

WIMBORNE MINSTER, CHALBURY.—Rainfall 4·14 in. below the average of 20 years; but number of wet days very slightly below average. On March 5th, the depth to water in the well was 2 ft. 6 in., by the end of March it was 8 ft. 4 in.; from November 20th to 24th, the depth to water was 16 ft. 11 in., but at the end of December the water was within 11 ft. 2 in. of the well's mouth.

KINGSBRIDGE.—Springs ran dry in this neighbourhood, which have within the memory of living man never before been known to fail, and in many instances had not begun to rise at the end of the year.

PLYMOUTH, NAVIGATION SCHOOL.—Rainfall only 79 per cent. of the average, number of rainy days three per cent. above the mean. Temp. about the average, but the days were colder and the nights warmer; there were no extremes of temp. Sunshine 32·5 per cent. of the time that the sun was above the horizon. Westerly winds were frequent.

DARTMOOR, LEE MOOR.—The smallest rainfall recorded in any year, except 47·22 in. in 1864, and 40·49 in. in 1870.

TORQUAY, BABBACOMBE.—Dry and warm. Rainfall about 25 per cent. below the average; number of wet days also small; the longest dry period was 15 days, from April 6th to 20th, and the longest wet period 24 days, from November 27th to December 20th. Rainfall exceeding one inch occurred only on one day. Mean temp. 50°·8; the latest frost in spring was on June 10th, the earliest in autumn on September 30th. S fell on eight days, H on 19, L was seen on only 19 days, fogs were rare, occurring on only 12 days. The first quarter was warm and wet; the spring dry with a cold April and warm June; the summer warm and dry (with the exception of July); the autumn dry and cold. August was the warmest and driest, December the coldest, and February the wettest month. S.W. winds were very prevalent in January, July, and December, N.E. winds in the spring. There were gales on 48 days; heavy from S.W. in January, S.W. and S. in February, and W.

in December. A purplish mist was often seen round the sun. The hay crop was small, but corn good. The ground was unusually dry from spring to November.

ASHBURTON, HOLNE VICARAGE.—While in 1881 there were 25 occasions on which one inch, or upwards, of R fell during 24 hours, in 1882 13, and 1883 17, there were only 10 in 1884. The total rainfall also was very small.

KINGSTEIGNTON, TEIGNBRIDGE HOUSE.—The smallest rainfall recorded during ten years. Great deficiency of water in many wells during the last five months, and the river Teign was singularly low for the same period, interfering materially with salmon fishing.

BOVEY TRACEY.—Rainfall 6·57 in. below the average of 28 years, but almost exactly 10 in. above that of 1864, the driest of the period.

BUDLEIGH SALTERTON, EAST BUDLEIGH.—An exceptionally fine harvest, the grass crop light, but all other crops above the average, especially in quality. Foliage was almost complete at the end of October owing to the absence of frosts, rains, and winds.

POLAPIT TAMAR [LAUNCESTON].—Water was rather scarce from midsummer to the beginning of October, and the rivers were very low even in December. Many garden crops suffered from drought in the summer ; apples and wall-fruit scarce, and the hay crop light.

EXETER, BRAMPFORD SPEKE.—Very fine, warm and dry. Rainfall one-sixth below the average of 19 years. The falls of February and July much above the average, and that of March also large. May, August, September, October, and November dry. Frosts with keen wind in the third week of April damaged fruit blossom. The seasons were very favourable, except the early corn harvest; hay and wheat crops were light, apples abundant and very fine, wall fruit scarce, potatoe and root crops good.

HOLSWORTHY, CLAWTON.—An unusually fine year for agriculture, and crops were gathered in well; green crops generally were very, and corn crops fairly, good. There was no S during the year.

HATHERLEIGH, BROOMFORD MANOR.—Rain fell on the last six days of November and the first 20 days of December, making 26 consecutive wet days.

COOKBURY WEEK.—Exceptionally dry, and free from gales. January, February, and December, were the wettest months, and July had the greatest number of wet days. The first 20 days of December were very wet, yielding no less than 6·23 in.

CULLOMPTON.—A well 30 ft. deep was dry in the autumn, probably for the first time since it was dug.

TIVERTON, IVY PLACE.—Rainfall much below the average. Only twice did the daily fall exceed an inch—viz., on March 3rd, and June 27th—and on both occasions the fall occurred in the night, and on the following morning the Exe had risen so rapidly that the lower parts of Tiverton were flooded, the main sewers and drains being choked and unable to carry off the superabundant flow of water.

TORRINGTON, LITTLE SILVER.—The year was remarkable for dryness in April, May, and June, and for frosty nights up to nearly the end of June. Spring corn was got in with difficulty, and generally slowly and unequally; hay crops were light; wheat good. There was an absence of floods in the Taw and Torridge, and it was a very bad year for anglers owing to the lowness of the rivers. There was not one record of an inch of R in 24 hours.

WEST BUCKLAND, DEVON COUNTY SCHOOL.—A very dry summer. For the first time for 15 years or more, the bathing pond at the school could not be used (except at the beginning of the season) owing to the want of water. From Nov. 27th R fell every day for 24 days in succession.

PENZANCE, PENLEE.—Rainfall just eight inches below the average.

ST. AGNES.—Unusually dry with a large amount of sunshine and a marked absence of gales and TSS.

ST. AUSTELL, ST. MEWAN.—The smallness of the rainfall of the year is very noticeable. Up to the middle of December the springs were very low, and great inconvenience was caused, afterwards though the rainfall was not great (only 4·25 in. in the month) the springs suddenly rose.

ST. AUSTELL, TREVARNA.—During the autumn there were complaints from all parts of the district of want of water; the stream which flows from an adit driven into a high hill to supply Tregorrick was almost dry, which is remarkable as the spring is not less than 35 fathoms below the surface. Wells also became dry which have never been known to be dry before.

MAKER VICARAGE [DEVONPORT].—Remarkable for an extremely small fall of R in continuous small quantities, the number of rainy days being large. Wells and springs were lower than for many years, but probably not lower than in 1871. They remained at their lowest point until November 20th, when, without R, a rise set in. The

normal height of a spring here was almost reached on November 28th, before the heavy R had set in, and was permanently regained on December 2nd.

BODMIN, LANHYDROCK.—An exceptionally dry summer; wells were dry from about September 5th to December 8th, one failed for the first time for at least 38 years.

BODMIN, CASTLE STREET.—There was an excess of R during the first three months, and for the remainder of the year, till December, the rainfall was below the average. The springs were lower in November than for more than 80 years.

BODMIN, FORE STREET.—Several wells and springs were almost dry in October, November, and December, but recovered about the 8th of December.

LISKEARD, ST. CLEER.—The rainfall was slight, being 15·25 in. below the average of 20 years. The springs failed throughout the district, but recovered during December.

STRATTON, WEEK ST. MARY.—From the commencement of the year till the middle of March it was very wet, a continuation of the wet period of the previous autumn. Very dry from the middle of March to the end of November. In this village there was no distress for want of water, though many wells were dry which had never been known so before, but the rain water tanks were not empty for any long period.

BUDE.—Never before, perhaps, in North Cornwall were the fresh water springs known so low, which caused a great amount of inconvenience. The springs remained low until the end of November.

CREWKERNE, BINCOMBE HOUSE.—The rainfall, though 7·40 in. below that of 1883, was five inches above that of 1870, when only 27·20 in. fell. August and September were fine, dry and hot.

ILMINSTER, WHITE LACKINGTON.—Rainfall 9·99 in. below the average of the previous 12 years; number of rainy days also small. Blackthorn winters were most severe; (I.) a week at the end of March; (II.) April 13th to 26th. Two perennial springs, in different ranges of hills, failed.

MILVERTON.—Rainfall 4·46 in. below the average.

MILVERTON, FITZHEAD COURT.—With the exception of January and December an unusually dry year, and, from an agricultural point of view, the best since 1877.

TAUNTON, LYDEARD HOUSE.—Very dry. The water in the pond

was lower at the close of the year than it had ever been, even in August or September, which are usually the lowest months.

BUTLEIGH COURT.—The rivers were very low all the year, what few floods there were running off quickly; the small springs ran well all the time, owing to local rain.

GLASTONBURY, STREET.—The year was remarkable for periods alternately wet and dry. The first five days of April were wet; it was then dry till nearly the end. The first seven days of May were wet, and the remainder fine. In June the first 11 days were wet or showery, then it was fine to the 28th. July was unsettled. October was very dry. November was wet and unsettled to the 9th, then dry. December was wet until the 19th, then dry to the close.

EXFORD RECTORY.—With the exception of the first and last months the rainfall was uniformly moderate. On the whole, the year was the driest since observations were commenced, in 1875, the total fall being $4\frac{3}{4}$ in. less than that of 1881, the lowest previously recorded.

BRIDGWATER, ASHFORD.—Very dry; the streams supplying the waterworks at Ashford were very low, but yielded more than the daily consumption of 200,000 gallons; the ordinary summer flow is about 4,000,000 gallons in 24 hours.

STON EASTON.—Rainfall 1·42 in. below the average of 16 years.

EAST HARPTREE, HARPTREE COURT.—From July 29th to November 1st, inclusive, a period of 96 days, only 6·98 in. of R fell.

KEWSTOKE.—There was great deficiency of water here, especially through the autumn, and wells that had not been dry before for many years were dry till the December rains.

BATH, QUEEN'S PARADE.—The driest year since observations commenced, in 1877.

DIVISION VI.—WEST MIDLAND COUNTIES.

CLIFTON, SOUTH PARADE.—Rainfall ·92 in. below the average of 30 years. The aggregate fall of the four months, August–November, was the smallest recorded in those four months in 32 years.

CHIPPING SODBURY, FRAMPTON COTTERELL.—The deficiency of rainfall during September, October, and November was severely felt; many of the wells being dry, caused the inhabitants much inconvenience.

FAIRFORD, PARK FARM.—The driest year since observations were commenced, in 1877.

STROUD, BRIMSCOMBE VICARAGE.—Several wells and springs ran dry, which had not been known to do so for many years previous.

GLOUCESTER, WHITCOMBE RES.—Very dry; rainfall 2·86 in. below the average of 22 years.

GLOUCESTER, BARNWOOD.—Wells in the gravel were very low during the latter part of the year.

HAMPEN.—The weather was on the whole favourable for farming operations, although July, with 25 wet days, occasioned serious damage to hay; the end of August and beginning of September also were very unfavourable for harvest; October was extraordinarily dry, and then most springs that had not already failed did so utterly, causing the scarcity of water, which continued to about the end of November, to be seriously felt.

BOURTON-ON-THE-WATER.—The small amount of rainfall in the autumn resulted in the streams becoming low and wells drying up, causing a dearth of water on the Cotswold Hills. Rainfall 6 inches below the average of four years.

CHELTENHAM, BATTLEDOWN.—All the hill streams were dry for a long period during the summer, and the wells supplied from the sand-bed in the village also were dry. The water in the reservoirs of Cheltenham was very short during autumn.

ROSS, THE GRAIG.—The driest year since 1874; May the driest since 1844; August to November inclusive the driest since 1854. Rainfall of January, February, March, June and July above the average. The wettest periods were from January 23rd to February 23rd, 32 days, 5·01 in.; and from June 28th to July 28th, 31 days, 5·91 in. The year being exceptionally dry, preserved the character of the fours, being like 1834, 1844, 1854, 1864 and 1874.

ST. DEVEREUX, WHITFIELD COURT.—A dry season, ponds and springs being unusually low, and water supply deficient.

LEDBURY, PUTLEY COURT.—There was a scarcity of water in October and November, deep wells (60 ft.) were much reduced, and wells of 30 to 40 feet almost dry, and had not fully recovered at the close of the year. Corn was of superb quality; swedes were light and badly mildewed.

LEDBURY, CANON FROME VICARAGE.—A dry, warm, productive summer, with the best hop and apple crops for years. No scarcity of water here.

HEREFORD, BURGHILL.—Rainfall very short, springs very low, and many ditches quite dry at the end of the year. July was excep-

tionally wet (rather by continuousness than quantity) and cold, seriously injuring some of the crops.

PEMBRIDGE, MARSTON.—Very little T during the year. Most of the wells dry for the last two months.

LUDLOW, ASHFORD.—The river Teme was very low from March to the end of the year, being only once in flood for a few days at the beginning of November; several wells dry in November.

CLEOBURY MORTIMER, NEEN SAVAGE.—A beautiful year; very few springs were inconveniently low in this valley, nor was the water in the river Rea unusually low.

BISHOP'S CASTLE, CASTLE STREET.—The driest year since 1874, with a remarkable absence of TSS. A partial failure of wells occurred through continued drought, but there was no great distress, as the public water supply was fairly well maintained.

BISHOP'S CASTLE, MORE RECTORY.—The finest and driest year of the last 10; brooks and wells unusually low from March onwards, and no floods.

MIDDLETON-IN-CHIRBURY.—Springs very low to the end of the year. Many young trees lost their leaders during winter and spring.

BROSELEY, BENTHALL HALL.—Remarkable for deficient rainfall—nearly seven inches below the average; and for the small number of days on which R fell, 182, as compared with an average of 200. There was only one day (September 16th), on which the R exceeded an inch.

WEM, SANSAW HALL.—Remarkably dry. The smallest rainfall for 14 years, being 8·87 in. below the average for that period. It is curious that the fall in June in each of the three years 1881, 1883, and 1884, should have been exactly the same, viz. 2·29 in. Many of the pits were still empty at the end of the year, and farmers were anxious about future supplies.

OSWESTRY, HENGOED.—The warmest and most propitious summer since 1868; serious deficiency of water in many places.

ADDERLEY RECTORY.—Total rainfall the smallest in any year since the gauge was erected in 1869.

LICHFIELD, ST. MICHAEL'S RECTORY.—The driest year of the last 13, the rainfall being 8·98 in. below the average.

BURTON-ON-TRENT, SHOBNALL.—Rainfall 7·43 in. below the average of nine years. The wettest month was September, with a fall of 2·81 in., and the heaviest daily fall 1·24 in. on the 1st of that month.

CHEADLE, TEAN VICARAGE.—By far the driest year since observations were commenced, in 1875, the rainfall being nearly six inches less than the driest of the previous 10 years (1881, 35·58 in.) and more than 17 inches less than the wettest (1882, 46·82 in.)

MALVERN WELLS.—The number of rainy days was again great, though a large portion of the total rainfall fell in a small number of days. In April, May, June, July, and October there were longish droughts; the autumn was generally damp, and with but few hours of sunshine; the frost in December was accompanied by damp mist and fog, and no S settled on the hills.

EVESHAM, LANSDOWNE.—The most genial, seasonable, and fine year for 20 years; there were long spells of hot, dry weather in the summer. Rainfall 20 per cent. below the average of 14 years.

EVESHAM, BANK.—Although the rainfall was considerably less than the average, little inconvenience was felt from drought, the R generally falling opportunely. The continuous wet weather of July was injurious to the crops of corn and hay.

GREAT MALVERN, MADRESFIELD.—Towards the end of October wells began to fail, and the yield was limited. The supply is usually abundant, the subsoil being marl, and the wells from 16ft. to 25 ft. deep; the shortness of water continued until December. The river Teme was lower than can be remembered for 40 years.

RADWAY, IVY LODGE.—The driest year since 1870. Springs were very low, and in some villages there was no water in the wells until after Christmas.

STRATFORD-ON-AVON, AVONSIDE.—By far the driest year since the record commenced, in 1876, and 8·05 in. below the average of eight years. The water in the Avon kept up much better than might have been expected with so small a rainfall, and the country was always green, the June, July, August, and September rains coming always just when they seemed most wanted.

COVENTRY, PRIORY ROW.—Rainfall the smallest in any year since 1874, when 24·47 in. fell; and 5·12 in. below the average of 18 years. Crops of all kinds were good, and the rainfall in July and August prevented the ground from becoming parched or brown from drought.

DIVISION VII.—NORTH MIDLAND COUNTIES.

ASHBY MAGNA.—Rainfall the smallest in any year since 1873, and much below the average in most months but July, when the

constant showers interfered greatly with haymaking. There was very little cold weather, except in April, when for several days about the middle of the month the frost was very severe.

FLECKNEY.—Great scarcity of water in pits, and springs very low in the autumn.

CHURCH LANGTON.—A great many wells and springs were dry between August and November.

LOUGHBOROUGH, VICTORIA ST.—General scarcity of water owing to the small rainfall. The reservoir at Nan Panton having ceased to yield a supply for the town, water was pumped into the mains from the Burleigh Brook.

MELTON MOWBRAY, COSTON RECTORY.—Wonderfully dry and fine. January and March were the only months in which the fall was above the average of 12 years; the total fall was exactly 8 inches below the average for that period.

BELVOIR CASTLE.—Rainfall below the average in every month except July. Considering the saturated state of the ground during the preceding nine years the rapid disappearance of water and the dryness of the subsoil are remarkable. Ponds generally empty and water scarce.

UPPINGHAM, WEST DEYNE.—The driest year since observations were commenced in 1873, the total fall being 1·07 in. less than that of 1874 which was the driest previously, and 9·75 in. below the average of 10 years.

WHITWELL RECTORY.—A much more genial and favourable year for agriculture than many previous ones; spring was good for getting corn into the ground, and in summer sunshine was abundant; crops matured well, and the harvest time was fine.

OAKHAM, GREETHAM.—Exceptionally dry. The pumps of the village, supplied by springs, were useless for more than a month—a circumstance not remembered by the oldest inhabitant.

STAMFORD, CASTLE COTTAGE.—Springs lower than ever known before in this neighbourhood, what little R fell being absorbed by the land.

SPALDING, PODE HOLE.—One of the most remarkable years in the history of Fen drainage; at the close of the year the engines were standing still, and the water on Deeping Fen was allowed to rise to almost summer level to afford a supply for cattle and in case of fire, &c. Fine wheat and hay seasons.

BOSTON, GRAND SLUICE.—Abnormally dry, the rainfall being the

least since 1864, when only 15·32 in. fell, and 10·91 in. below the average of ten years.

LEAKE, LADE BANK ENGINES.—Very dry. Pumping engines for draining the Fens worked very little.

SLEAFORD, BLOXHOLM.—Remarkable for scarcity of water; wells 100 ft. deep were dry for weeks; watercourses, streams, and ordinary ponds were all dried up, and water had to be carted from a distance, for domestic use, and for stock.

HORNCASTLE, BUCKNALL.—The driest year since 1874 when the fall was 17·22 in.

HORNCASTLE, QUEEN STREET.—Residents on clay lands suffered much from scarcity of water which had to be carted for long distances; at the close of the year farmers were hauling water for stock. Springs were dry that were not so even in 1826. A very healthy year throughout the Horncastle Union.

LINCOLN, DODDINGTON.—The driest year since 1874. Water very scarce, most of the field ponds and many wells being dry, up to the very end of the year, and farmers obliged to cart water for their stock.

HORNCASTLE, HEMINGBY.—Most of the wells and springs dry from the middle of August to the middle of December.

ALFORD, THE SYCAMORES.—Remarkable for the dry spring and summer from which all crops suffered greatly. In the marsh district bordering the sea, land could not be sown owing to the drought and absence of winter frosts.

ALFORD, SUTTON-BY-THE-SEA.—No failure of wells here, but the streams fed from the chalk formation were lower than had been observed for many years.

LOUTH.—Rainfall 2·23 in. less than the lowest record in Louth during 20 years (viz. 1874 23·12 in.) and 9·45 in. below the average. Several wells were dry in the summer; all springs low, and at Tetney the Bloe Wells and other overflowing springs were very low.

LOUTH, WESTGATE.—Remarkable drought especially in the early part. Many fields in the marshes—*i.e.*, towards the sea-coast—were unsown, and many others had to be sown a second time, the grain after lying in the ground for some time being as dry as in the granary. The dykes were nearly dry during the summer and autumn, the ponds exhausted, and many wells failed. The stream of the Ludd which runs through Louth was cleaned out, advantage being taken of the scanty supply of water.

GRIMSBY, AYLESBY.—Rainfall the smallest of any of the 12 years recorded here, being 2·04 in. below that of 1874 the next lowest, and 9·54 in. below the average of 11 years.

ULCEBY, LIMBER GRANGE.—After cold drying winds in April, May commenced warm with drying winds, and it continued hot and dry to the end of the month, when the ponds on the Wolds dried up, and water for stock had to be carted until the end of October; from that time there were just sufficient showers to supply stock. All shallow wells dried in August and almost daily afterwards. A deep well (150 ft.) yielded a good supply of pure water, but at the end of the year many towns and villages still had a very scanty supply, and there was no sign of springs breaking anywhere.

APPLEBY.—There was sad want of water in the village wells in October, November, and December.

ULCEBY, KILLINGHOLME.—Water was scarce in the latter half of the year. There was no great fall of R, and the slight showers did not penetrate the ground.

NOTTINGHAM, BEESTON FIELDS.—Rainfall much below the average; there was only one fall of more than an inch in 24 hours. A good year for farming, as far as regards weather, and a fair year for fruit.

NOTTINGHAM, PARK HILL.—A dry year, especially remarkable for the strange distribution of the rainfall over the months; July had twice as heavy a fall as any other month, except January, which latter was wetter than usual. February, April, October, and November, all unusually dry. Spring, autumn, and winter, very mild and open, summer extremely hot and dry.

NOTTINGHAM, STRELLEY HALL.—A very dry and rather warm year; the mean temp. being about 1° above the average; the total rainfall (21·35 in.), is probably 7·50 in. below the mean. The year was drier in this neighbourhood than any since 1874, the rainfall of only two months, January and July, being above the average; the number of wet days (163) was not remarkably small. Although the year was so dry, there was little sunshine, only 24 per cent. of the possible duration being recorded. All ponds, &c., fed by surface supply became unusually low, and most wells which were constantly used for farm purposes were dry about the end of October. In one instance a well 45 ft. deep, sunk in the coal-measures, at the beginning of May, had 36 ft. of water in it; in the middle of November it had 15 ft. of water, and was rather higher than a short time before; it is about 100 yds. from the shaft of an old coal-pit, the workings of which are full of water.

EAST BRIDGFORD.—Nearly half the total R for the year fell in three months—January, July and August. The Trent and its tributaries were very low in May, June, October and November. Drinking water was very scarce indeed, for hardly any of the well water hereabouts is drinkable, being loaded with gypsum.

NEWARK, EAST STOKE.—The Trent was very low in May, June, August, and September. A few springs and wells failed, but none of the deep ones.

MANSFIELD, MARKET PLACE.—A most agreeable and productive year. A mild, dry spring, a glorious summer, a plentiful harvest, and a genial winter. There were two days with upwards of an inch of R—February 1st, 1·63 in., and August 31st, 1·18 in., but no month with a fall of 4 inches.

WORKSOP, HODSOCK PRIORY.—The year will be chiefly remembered for the small rainfall, for the absence of frost, for the heavy TSS in July, and for the fine harvest weather in August. The rainfall was 4·75 in. less than the driest of the previous eight years. The fall was in excess in only two months, January and July; in February, March and April it was about the average, while during the remaining seven months it was deficient. There were not many heavy falls, but the max. (2·04 on July 9th) is the largest which has yet been recorded here. Mean temperature higher than in any of the previous eight years; 1233 hours of bright sunshine were recorded, (or 28 per cent. of the possible duration), which is 107 hours less than the average of the previous three years; the only months in which there was an excess being August and September. The spring was very forward up to the first week in April, but the cold weather which then set in stopped growth, and injured the fruit blossom. Hay crops small owing to the dry weather, but the corn crops fair; harvest early and owing to the splendid weather a very short one, but the wheat had been badly laid by the heavy TSS in July, which made the use of machines in many places impossible. Turnips suffered much from the dry weather at seed-time, and again from the grub of the turnip moth in August; potatoes good. Both the dry spring and autumn gave opportunities to farmers for cleaning the land which had been wanting in recent years. The streams were lower than they had been for a long time, but no instances observed of wells being dry in this immediate neighbourhood or of any difficulty having arisen as to water supply. Mean

temp. 48°·9; mean amount of cloud 6·1; relative humidity 80; number of frosts in shade 40, on grass 127.

DERBY, ELVASTON.—The chief feature of the year was its extraordinary drought, the rainfall being below the average every month, excepting January and July, and only exceeding it by 1 in. in the latter month. Temp. was very high from May to September inclusive; mean temp. of the year 49°·9.

STRETTON, LINDWAY RESERVOIR.—The driest of the last 10 years, only three days of excessive rainfall; February 1st, 1·25 in.; July 10th, 1·03 in.; and August 31st, 1·12 in. A great scarcity of water was experienced in the Midland district. The harvest was gathered in splendid condition, but there was very little fruit.

STONY MIDDLETON.—A year of drought. Wells never dry before were this year dry for many weeks.

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESTER, ABBOTS HAYES.—Rainfall about the average. April May, June, August and October were very dry; the summer was very hot.

CHELFORD, ASTLE HALL.—Very mild, with unusually small rainfall; since 1875 there has been nothing approaching it. Great heat in August and part of September. Many springs and ponds completely dried up in the autumn.

NORTHWICH, WINNINGTON.—The driest year since 1870, when the total rainfall was only 19·66 in.

NESTON, HINDERTON.—Rainfall 20 per cent. below the average of 15 years.

FRODSHAM, FOX HILL.—A remarkably fine season; rainfall about 30 per cent., and number of wet days 15 per cent., below the average. There were very few TSS, and on only one day did the rainfall exceed an inch. The harvest weather was perfect and the crops were good.

LYMM, AGDEN HALL.—There was a great scarcity of water in this neighbourhood, several wells were quite dry, and one spring, which was never known to fail before, ceased running.

NORTHENDEN, WYTHENSHAWE.—A very fine summer; many streams and wells dried up.

AIGBURTH, KELTON.—Rainfall singularly small, 8·60 in. below the average of 10 years. During seven weeks, from May 16th to July 3rd, rain fell on only seven days, on one of which (June 7th) the heaviest

fall of the year occurred; but including this, 1·31 in., the total fall during the seven weeks was only 1·88 in.

MANCHESTER, ARDWICK.—Dry, so much so that a water famine was feared during the autumn; rainfall nearly 5 inches below the average.

BLUNDELLSANDS, PARK CORNER.—A very fine dry year, July being the only wet month; there was only one fall of R exceeding an inch in 24 hours, and the total for the year is 6·91 in. below the average of eight years, and the smallest during that period.

MAGHULL.—At Melling Quarry, two miles south of Maghull, the surface of the underground water was, on November 23rd, 1884, 42·5 inches lower than in 1883, 44 inches lower than in 1882, and 31·5 inches lower than in 1881. The local circumstances and conditions were similar in all these years. The strata are the Bunter Pebble Beds of the Trias.

BOLTON-LE-MOORS, THE FOLDS.—Rainfall 11·60 in. below the average of the previous 53 years.

BOLTON, BELMONT ROAD.—The rainfall of 1884 was the smallest during 19 years, but the fall in 1865 was very similar. There was no lack of water at Bolton.

ROCHDALE, CASTLETON VICARAGE.—Rainfall much below the average, but no inconvenience was felt in this neighbourhood.

ORMSKIRK, RUFFORD.—The driest year since 1865, when 27·85 in. of R fell.

OVER DARWEN, ST. JAMES' VICARAGE.—The driest year of the 12 recorded here, and only one day on which more than one inch of R fell. The large reservoir was very low, containing towards the close of November only four or five days' supply; the public were warned against "waste of water."

THE HALL [TODMORDEN].—This district was very short of water for many weeks.

WHALLEY, SABDEN.—Remarkably dry during the summer months, with the exception of July. The first and last months of the year were very wet.

ST. MICHAEL'S-ON-WYRE.—The driest April and June since observations were commenced, in 1876.

GARSTANG, CALDER MOUNT.—Summer unusually sunny, dry, and warm, but no serious shortness of water was experienced in this district.

CLITHEROE, DOWNHAM HALL.—The driest year since 1865

(35·30 in.), the rainfall being 9·03 in. below the average of the 20 years, 1865 to 1884.

BARROW-IN-FURNESS, CAVENDISH PARK.—Rainfall 4·69 in. below the average of 12 years, and the smallest since 1880, when 30·65 in. was recorded.

ARKHOLM, STORR'S HALL.—Though this part of the country has an average rainfall of nearly 44 inches, this year after a dry August and September many wells were dry, small streams ceased to run, and whole villages had a short supply of water. The rainfall of the year is very similar in amount to that of the dreadful year 1879, but very differently distributed, which illustrates the necessity of studying the distribution of the fall over the year, as well as the total quantity.

CARTMEL, HOLKER.—Rainfall about three inches below the average of 11 years, January being the wettest month and April the driest. A very fine summer and autumn, most favourable for ripening the wood of fruit trees for next year's crop. Potatoes very free from disease, and a fair crop. Fruits ripened to perfection on the open walls.

CARTMEL, PIT FARM.—The wheat plant was nearly destroyed by S.W. storms in January, so that, although almost everything was favourable afterwards, the yield was rather below the average; the drought in May and June made the oat and hay crops rather light, and damaged some of the fields of turnips.

CARTMEL, BROUGHTON HALL.—Rainfall 3·31 in. below the average of 15 years; January, July, and December supplied nearly half the total, June was dry, July wet and August dry; E. wind prevalent in February and April.

DIVISION IX.—YORKSHIRE.

SHEFFIELD, RANMOOR.—The year was so dry, that at the close a farmer a mile further west, outside the borough of Sheffield, was still carting water, the R of the last six weeks not having set the springs running.

WATH-UPON-DEARNE, CHAPEL STREET.—The heat of the summer was above the average, and there was more sunshine than for three or four years past. There were many severe TSS, and many objects were struck. There was very little S either at the beginning or end of the year.

WATH-UPON-DEARNE.—Rainfall of the year about 19 per cent below the average.

STAINBOROUGH, WENTWORTH CASTLE.—Rainfall 10·17 in. below the average of eight years. Scarcity of water was felt in several of the neighbouring towns and villages, but growing crops did not suffer from want of moisture, the rainfall being pretty evenly distributed throughout the season.

MELTHAM, HAREWOOD LODGE.—Very dry. But for the heavy falls of January and the first part of December, the dryness would have been without precedent. From March to November inclusive, there fell only 18·00 in. of R, or two inches per month, probably less than two-thirds of the average. The dryness did not amount to a drought, except perhaps from May 20th to June 4th, 16 days without R, and from July 30th to August 26th, 28 days, with only ·24 in. on five days. The weather in August was very fine, and the temp. excessively high.

DONCASTER, BURGHWALLIS RECTORY.—Rainfall more than five inches below the average. A well-sinker 70 years of age says that he this year saw ditches, ponds, and streams dry, which he had never seen dry before. Since 1868 the well here has not been so low before, and it continued to get lower till the end of the year.

HUDDERSFIELD, DALTON.—Very dry. Rainfall 8·02 in. below the average of 18 years.

WAKEFIELD, ALVERTHORPE HALL.—The early months of the year were genial and warm, until the end of April, when three successive nights of severe frost, completely destroyed the fair prospect of fruit, leaving only the later crop of strawberries, &c. After the wet and unsettled weather of July, the following months were marked by extreme drought and heat, continuing to the end of October, and the subsequent rains had not reached the dried up springs at the close of the year.

WAKEFIELD, STANLEY VICARAGE.—A most enjoyable year for mankind, and favourable to vegetation, with a very small rainfall, and abundance of sunshine.

SOUTH MILFORD RECTORY.—Many wells in the parish failed, but the beck which runs through the village, though very low, did not entirely fail, as it receives the pumpings from the coal pits at Micklefield.

BRADFORD, FARCLIFFE.—Rainfall 7·64 in. below the average of the seven years 1878 to 1884 inclusive, and smaller than in any other year of that period. There was a short supply of water for the town, but this arose more from want of storage capacity in the reservoirs than from want of R.

LEEDS, OLIVER HILL, HORSFORTH.—The water supply of Horsforth (in the hands of a private company) failed, and was limited, from August 22nd until December 21st, to two hours per diem, and sometimes was not turned on at all. Recourse was had to pumping from a stream flowing out of the Bramhope Tunnel, N. E. Railway. Several open streams dried up, but the wells were not exhausted.

OTTERBURN-IN-CRAVEN.—The small rainfall from February to September inclusive, stopped the traffic on the Leeds and Liverpool Canal, which passes through Craven; for the five inches of R in July scarcely stirred the tributaries of the river Aire, the land having become so dry. The Canal Company are arranging for a reservoir. From December 2nd there were 18 consecutive wet days.

ARNCLIFFE.—An unusually dry and sunny summer, and a genial autumn.

SEDBERGH, BRIG FLATTS.—Rainfall much below the average, and the weather, on the whole, most enjoyable. The dryness from the middle of May to the end of June affected the crops, hay and straw being much lighter than usual.

SEDBERGH, THORNS HALL.—Unusually fine and sunshiny, but the water supply did not fail.

HULL, BEVERLEY ROAD.—Very fine; the smallest rainfall since 1864, when 18·27 in. fell. January was a wet month, the three following months were about the average, and all the rest below it.

HULL, DERRINGHAM.—The chief meteorological features of the year were the mildness of the winter, with the uniform temp. of the first four months, and the drought of seven months' duration from May to November, which was, however, exceeded, both in intensity and duration, during the decade 1850—59. The rainfall of the first four months was in excess, January being about 90 per cent. above the average; but in the following seven months, May to November, there was a deficiency of 7·28 in. The year, as a whole, was the driest since 1861, the total fall being 5·02 in. below the average. The water supply continued deficient to the end of the year, the wells, streams, and district drains being all low.

BROUGH, BRANTINGHAMTHORPE.—A very dry summer and autumn, with great scarcity of water. Springs were lower in December than can be remembered in the present generation. Corn crops and fruit ripened well, and were of good quality.

COTTINGHAM.—The longest period of dry weather was at the end of May and beginning of June, when there were 16 days without R;

the longest continuous wet period was 11 days in the middle of December.

BEVERLEY, ALEXANDRA TERRACE.—The driest and hottest year since 1873. Rainfall 8·70 in. below the average of 12 years. All ponds and wells dry, and farmers had to buy water of the company, or from some other source, until December. Fruit blossom destroyed by frosts early in May; all other crops abundant, and gathered in fine condition.

MARKET WEIGHTON, DALTON HALL.—The winter was mild, and the summer hot and dry. Water very scarce on the Wolds, and farmers had to cart it for miles for cattle.

MIDDLETON-ON-THE-WOLDS.—Rainfall 13·48 in. below the average of eight years.

WETWANG.—Fimber pond was cleaned out, which was last attempted in 1826, but failed. Water was sold for months at a halfpenny a bucket, wells and springs being dry. From May 7th for 28 days only ·24 in. of R fell.

THIXENDALE.—As early as March 15th it was summer-like; bees were busy and house flies appearing; in July and August TSS were frequent; harvest was early and quick, being over about September 12th; and it was a great year for mushrooms, which lasted till the second week in November. The total rainfall was 13·67 in. below the average of seven years, and even in December water carts from outlying farms were busy at the village spring. This and all the springs round were very low, running more feebly than was ever before known. Mean temp. 46°·5.

HUNMANBY, FOXHOLES RECTORY.—A very fine dry summer on the whole; too dry at times for farming operations.

WOLD NEWTON.—In 1884, for the third time since 1875, the Gypsey spring did not rise.

MALTON.—The smallest rainfall since 1873, when only 20·71 in. was registered.

MASHAM, BURTON HOUSE.—Most unusually dry. The river was lower in August than it had been for a great number of years. Marfield pond (12 acres) was dry for the first time for 13 years, and continued so at the close of the year; on account of its lowness no salmon came up the river, an almost unprecedented occurrence, and water was for months led to the cattle in the fields on account of wells and springs failing; this also continued to the close of the year.

SCARBOROUGH.—Rainfall 7·79 in. below the average. A large sheet of water about one mile from here, called The Mere, was drained, as usual, at the end of the summer to cut the rushes, and did not fill again all the year, on account of the failure of the stream; a similar occurrence is not remembered for 25 years previous. The springs, from the chalk, which supply the town, were not much affected.

SALTBURN, PORT MULGRAVE.—Rainfall of the year very small. Some of the rivulets in the neighbourhood were dry, and others extremely low; water in the fields was scarce.

GUISELEY, TRANFIELD LODGE.—Wells and springs were lower than for 20 years previous, and the water supply of Guiseley had to be eked out most economically.

DIVISION X.—NORTHERN COUNTIES.

DARLINGTON, DINSDALE RECTORY.—One of the driest seasons for many years. The four pumps here all failed at times, and great care had to be taken to secure a supply for the house; for the stable, water had to be carted till the close of the year.

DARLINGTON, CLEVELAND PARADE.—A decidedly dry year, but there was no scarcity of water in this immediate neighbourhood. January and July were the wettest months, the heaviest falls in the latter month being accompanied by T and L.

SEAHAM HALL.—A stream which runs through the district from W. to E. was dry for the greater part of the year, and even to the close, though it had not been dry before at midwinter for 30 years.

SHOTLEY BRIDGE, SHOTLEY PARK.—The dry weather before July caused such a want of water in the earth that the R afterwards seemed unable to penetrate, and the springs failed, and did not recover until nearly the end of the year.

SUNDERLAND, WEST HENDON HOUSE.—A very dry year after nine consecutive wet ones; rainfall one inch less than that of 1873, the driest previously recorded here, *i.e.*, since 1860; yet the three months, January, March and July, were wetter than the average of 18 years, and February and April were about the average; the remaining seven months were decidedly dry; the smallest fall for any month being 0·56 in. in August; May also was the driest May recorded. There was a remarkable excess of S.W. and S.E. winds, and a deficiency of W. and E., so much so that during the last five

months E. prevailed for only 48 hours, the average being 258 hours. January was one of the windiest months ever recorded.

NEWCASTLE, TOWN MOOR.—Rainfall 6·81 in. below the average of 17 years, and the smallest in any year since 1873, when 20·35 in. fell; the number of rainy days was only slightly below the average.

NORTH SHIELDS, ROSELLA PLACE.—Rainfall 8·86 in. below the average of 10 years.

SEAHAM VICARAGE.—A fine year, with the smallest rainfall in any year since 1873, and with the exception of that year the smallest during 20 years; the deficiency occurred chiefly in the four summer months, June to September, but though dry the temp. was not high.

NORTH SHIELDS, CLEMENTHORPE.—Springs very low, and remained so for a greater length of time than can be remembered.

BINGFIELD HOUSE.—Very great drought from the latter part of June to the early part of December, many land springs being quite dry.

MORPETH, BOTHALHAUGH.—The rainfall of all the months except January and July was below the average. From May 10th to 26th was warm, from May 27th to June 22nd, cold with N.E. wind, and there was much T in July and August.

ROTHBURY, WHITTON TOWER.—At the beginning of November a spring at the Tower, which had never previously been known to fail, was dry for three days.

PAWSTON [COLDSTREAM].—Harvesting operations were much delayed owing to mists during the nights, and the absence of drying wind. There were 15 consecutive days without R from May 21st to June 4th inclusive.

BRAYSTONES.—Rainfall 0·71 in. below the average of 20 years.

ST. BEES, ABBOT'S COURT.—Rainfall almost exactly the average of the 10 years, 1875 to 1884.

KESWICK, SHU-LE-CROW.—April and June were unusually dry, and also the latter half of May; the rainfall was small also in August and November; the heat in July and August was very great.

COCKERMOUTH, WHINFELL HALL.—Rainfall 1·42 in. above the average of 29 years.

BASSENTHWAITE, MIREHOUSE.—January and February very windy and wet; April very fine; the first part of May stormy and cold, but from the middle of May to the beginning of July no R to speak of (except a TS on June 7th); July was wet but warm. A very fine year, and a very warm summer.

COCKERMOUTH, HIGHAM.—The water supply at Higham did not fail; but at the farms below the hill on the N.E. side between Higham and the river, streams were very low and wells failed in April, June and November.

COCKERMOUTH, BROUGHTON GRANGE.—The first three months were very wild and stormy, and were followed by an exceptionally dry early summer. The rainfall of the year was above the average of the last 12 years, and the number of storms was greater than usual.

PENRITH, THE LUHAM, EDENHALL.—Rainfall 1·56 in. below the average of 13 years; number of wet days slightly in excess.

BLENCOWE SCHOOL.—The year, with all its supposed dryness, had a rainfall nearly an inch above the average of 14 years; January, July and December contributed by far the largest share, the first being the wettest month of the year. There was a rainless period from May 17th to June 6th, nearly rainless from June 9th to 30th, and from August 2nd to 23rd (except a fall of nearly ·50 in. on 10th); there were dry periods in September, October and November, and at the end of December. Agriculturally the seasons were excellent, though the result was not altogether favourable. No very marked deficiency of water.

CARLISLE, WREAY VICARAGE.—Rainfall 2·04 in. below the average of eight years, but number of rainy days in excess.

KIRKBY LONSDALE, CASTERTON.—An exceedingly fine year, though essentially showery, R having fallen on 205 days; the longest period without R was 19 days in May and June; and drought was not seriously felt.

AMBLESIDE, NOOK COTTAGE.—Rainfall below the average; one-third of the total fell in the first and last months. From May 17th to July 3rd only ·80 in. fell.

ORTON VICARAGE.—In the autumn the springs became very low, and almost all the ponds were dried up.

SHAP, COPY HILL.—January was the only windy month during the year; the summer was very dry, and water was scarce; crops of all kinds were rather light, but well gathered; the latter months were fine with frost. There was little S, and there were no heavy fogs.

APPLEBY.—Very dry; the Eden was lower in June than it had been known before.

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

NEWPORT, GOLD TOPS.—The wettest two months were January and December, and the driest two April and October.

LLANFRECHFA GRANGE.—An unusually small rainfall; springs and wells dry, which had not been known so before.

TREDUNNOCK.—Several wells in this neighbourhood dry during September, October and November, and the river unusually low during the same period.

TREDEGAR, BEDWELLTY HOUSE.—Great scarcity of water from June till October, and the town was on short supply for some months; the supply for the iron and steel works was also very short, and not sufficient to keep them going full time.

MONMOUTH, PENTWYN.—No lack of water here, either in well, soft water tanks, or river; the latter, of course, was low, but not below a fair summer level, and the mill was not stopped.

CARDIFF, PENTYRCH.—Rainfall 9·39 in. below the average of 18 years, and number of wet days 22 below the average. Only two drier years have been recorded—1870 with 40·54 in., and 1880 with 41·80 in. It was a remarkably fine year, and no actual difficulty occurred from drought, as R always fell in time to prevent it.

HAVERFORDWEST.—The year commenced with gloom, mildness, constant R, and entire absence of frost; the whole of February was very wet and mild, and March on the whole was mild with much R; from thence to the end of June the weather was fine with a conspicuous absence of R. The summer was remarkably fine with mean temp. above the average, and the heat of September was quite exceptional. After the commencement of October the weather gradually broke up, but no remarkably cold weather occurred, very little S fell, neither was it as stormy as other years.

FISHGUARD, CASTLE HILL.—Great scarcity of water in this town, many wells being dry.

LLECHRYD, CASTLE MALGWYN.—The rainfall of the year was, what is considered here, about the average; the first three months were wetter than usual, the next three drier, and the remainder about the average. Want of water was not felt here.

ABERAYRON.—The first three months of the year were very wet, but the summer was very dry, and the total rainfall of the year was small; the streams were "dead" low and many springs failed.

BRECKNOCK, CANTREFF RECTORY.—An unusually dry and bright summer; rainfall below the average, and a scarcity of spring water.

LLANIDLOES, BROOMCLIFFE.—Water generally scarce, and many pumps and springs were dry that had not before been known to be so.

CHURCHSTOKE, MELLINGTON HALL.—The driest year since 1875, the rainfall being 4·52 in. below the average of 10 years. Eight consecutive months, April to November, were all drier than the average.

MOLD, BRYN ALYN.—Rainfall about three inches below the average. October (usually the wettest month) was the driest October registered here since 1866. The gardener, who has been here 41 years, never remembers the river Alyn and the little stream at the bottom of the fields so low as they were this year, and at the close they were still much under their wonted volume.

ST. ASAPH, NANTLLYS.—Quite local rainfalls make July appear wetter than would be true of the district generally. Evaporation was great, and this, as well as deficient rainfall, affected the springs.

RHYL, SEDGLEY HOUSE.—No wells are used in Rhyl. The water supply was very short in October and November, the supply being brought from a reservoir 10 miles distant, which has never been so low before.

RUABON, WYNNSTAY.—Rainfall about eight inches below the average.

ROSSETT, TREVALYN HALL.—Rainfall 5·67 in. below the average of 15 years. The only very wet month was July, and the deficiency in May, August, and October was very considerable, while April, September, November, and December were more or less below the average. High temperatures occurred in summer.

LLANDWROG, GLYNLLIVAN PARK.—The summer was unusually dry. Springs which the oldest inhabitant can hardly remember to have failed, dried up, and continued so until late in the autumn.

LLANFAIRFECHAN.—Most springs were dried up by August, on account of the absence of R in April, May and June; they were never known so dry before, and the water only re-appeared quite at the end of the year, but a well here 40 ft. deep, never altogether fails.

LLANERCHYMEDD, LLWYDIARTH ESGOB.—Great scarcity of water in the springs from the latter part of August to the end of November, caused by the absence of heavy continuous rains, the light showers being absorbed or evaporated.

DOUGLAS, VICTORIA ROAD.—Rainfall nearly 5·50 in. below the

average of 10 years; there were several weeks of genial summer weather (the first for six years), followed by a fine autumn. The first three months were very wet, the fall amounting to 14·85 in., and in January and February occurred frequent gales of great violence; cool and fair weather prevailed through April and up to May 15th, from which date to July 6th fine, bright, dry weather prevailed; the remainder of July was wet and cold, but perhaps beneficial to agriculture. August was a lovely month of summer weather, and September, October, and November were generally fine, but with occasional wet periods. December was extremely wet, with almost unceasing gales till 21st, then fine and cold.

DOUGLAS, CRONKBOURNE.—A wet mild winter, dry spring, warm and, excepting July, dry summer, an average autumn. Altogether a finer, drier and warmer year than usual.

ANDREAS.—Very fine and dry. Severe TSS at times, but not much damage done.

ST. AUBIN'S SCHOOL.—Rainfall only 92 per cent. of the average, and there was a marked excess of rainless and very fine days. June and December were wet months, January and September average, and the remainder dry.

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

DALBEATTIE, COLVEND MANSE.—More sunshine than for some years past, and this, combined with an average rainfall, was conducive to vegetation.

MELROSE, ABBEY GATE.—Rainfall ·53 in. below the average of 13 years; the fall of July was 3·13 in. above, while that of August was 1·64 in., and that of September (the harvest month) ·78 in., below the average. Agriculturally considered, the year was favourable, and the crops were good. Mean temp. 43°·4, about the average.

DIVISION XIII.—SOUTH EASTERN COUNTIES.

THE HANGINGSHAW.—There was less rain than usual, and a hotter summer, but the latter part of the year was colder. The summer

was remarkable for numerous severe TSS; the year, as a whole, for sudden changes from heat to cold, and from cold to heat.

INNERLEITHEN.—During a residence of more than forty years on the banks of the Tweed it was never before known so small in volume or to continue so for so long a time as in 1884.

EAST LINTON.—Rainfall seven inches below the average of 28 years; an exceedingly good year for agricultural produce.

DIVISION XIV.—SOUTH WESTERN COUNTIES.

BIGGAR, WISTON.—The crops here were fine and well ripened, but rather short in the fodder, the weather was excellent for gathering; and there was no heating; potatoes very fine in quality and plentiful; turnips partial, in some places fine, and in others almost a failure; hay an average crop and well got.

HAMILTON, BOTHWELL CASTLE.—The season was favourable for agricultural crops, and for grazing purposes, and vegetable crops in the gardens were good, but the long continuance of cold east winds in spring greatly damaged the fruit.

COATBRIDGE, LOCKWOOD.—The spring was mild, with little severe frost, though a few nights in March were sharp; and there was very little S. The summer was fine, and warmer than usual, with a great deal of T, L and heavy R in July, notably on the 10th, when 2·35 in. fell in 24 hours; there was great heat in August and much T and L on the 12th. Crops all very good and harvest about a fortnight earlier than usual and well secured. Autumn pleasant, and fine weather lasted until the end of October, when heavy R set in and continued until the first week of November, followed by fine weather with frost. For the first 20 days of December, excepting 1st and 12th, R fell every day with severe gales, and on the 15th three inches of S fell, which rapidly melting caused floods in the rivers; from the 21st until the end of the year sharp frost prevailed, there was little or no wind, and the winter was conspicuous for the absence of any serious or prolonged fogs, which usually accompany frost in this neighbourhood.

GIRVAN, PINMORE.—An exceptionally fine summer; rainfall of the year above the average, the excess being greatest in January and February.

DIVISION XV.—WEST MIDLAND COUNTIES.

OBAN, CRAIGVARREN.—The year was a golden one in the north-west; equable temp. and very moderate rainfall in the first half, balanced by heavy falls in October and November, which brought the total rather above the average. The hay crop was short, but the harvest was splendid and the green crops were excellent.

BALLACHULISH.—A mild year with heavy rainfall but a warm summer; good agriculturally.

CANTIRE, STONEFIELD, TARBERT.—The springs were dry, and farmers were badly off for water, in the latter part of June and the beginning of July.

ISLAY, ARDBEG.—The driest summer within the memory of the oldest inhabitant.

MULL, QUINISH.—The heaviest rainfall of any year since the gauge was started, at the beginning of 1875.

DIVISION XVI.—EAST MIDLAND COUNTIES.

STRATHMIGLO, LODEN URQUHART.—There were no exceptional falls of R during the year, one inch not being once reached in 24 hours. The month of January was unusually mild, with heavy gales; from May 18th to July 2nd, was very dry, and at the end of June it was very hot; from July 3rd to 18th it was very dull and wet, with T almost every day, and on August 12th there was a terrific TS; from September 1st to 23rd, the weather was very quiet and hazy, with thick fogs.

DUNBLANE, KIPPENROSS.—Rainfall 3·27 in. above the average of 30 years, but the fall was irregularly distributed. No month so dry as June 1884 has occurred since May 1880, and not since December 1876 has there been so wet a month as January 1884.

CALLANDER, LENY.—The rainfall of the year was in excess of the average; June was singularly dry; from September 13th to 23rd there was an unusual return of summer, and in October there were some days of splendour; great gorgeousness of colour was noted in the fading foliage.

BALQUHIDDER, STRONVAR.—Exceptionally cold and wet. Crops on the whole, with the exception of meadow hay, below the average.

COUPAR ANGUS STATION.—The rainfall of the year was below he average; falls exceeding half an inch occurred on seven days,

but only once was an inch recorded. January, March and July were all wet.

BLAIR ATHOL.—The heavy falls in 24 hours occurred in connection with TSS. The unusually light rainfall in June had the effect, in this district, of making a light hay and straw crop.

DIVISION XVII.—NORTH EASTERN COUNTIES.

CROMAR, TILLYPRONIE.—A fine warm year, rather dry in May and June.

ABERDEEN, ROSE STREET.—Rainfall 5·84 in. below the average of 25 years; and less than ·50 in. above the fall in the driest year of that period (1870) when only 24·00 in. fell.

ABERDEEN.—Rainfall about 6 inches below the average; the seasons throughout were remarkably fine. Aurora seldom seen.

MIDMAR, BLACKSTOCK.—The driest year of the 20 registered here. Many farmers in this district were, at the close of the year, still unable, from the scarcity of water, to thrash a sufficiency of fodder for their cattle.

ELLON, KERMUCK.—The smallest rainfall recorded since observations began in 1862 (excepting 1865, when 27·09 in. fell); the chief deficiency occurred in April, May, June and September.

OLD DEER.—The season throughout was dry, and rivers and springs were very low. Cattle in parks suffered for want of water, which in some cases had to be carried from a distance. Crops were fair, and of good quality, but short in bulk.

CULLEN HOUSE GARDENS.—Very dry, warm, and bright throughout the summer, and all crops came well to maturity, peaches, apricots, plums, &c., ripened well on the open wall; the autumn and early winter were mild.

CRAIGELLACHIE, WESTER ELCHIES SCHOOL.—Remarkably dry during the latter part of spring and in early autumn; the well of the school was dry from the end of June till the end of November, and has never been known to be so long dry before. There were only a few wells in the lower parts, and strong springs, that did not become dry.

CRAIGELLACHIE, WESTER ELCHIES GARDEN.—An unusually dry season. Some springs dry from June to November.

FORRES, H.R.S.—The smallest rainfall for 10 years. The nearest to it was in 1880, when 20·65 in. was registered.

GORDON CASTLE.—Remarkably fine and dry; fruit ripened to greater perfection than it had done for several years, and all hardy kinds were plentiful, except apples and pears.

DIVISION XVIII.—NORTH WESTERN COUNTIES.

INVERGORDON CASTLE.—All springs very low, many were dry for three months after July, and were scarcely running again at the close of the year.

ALNESS, ARDROSS CASTLE.—Cold and dry from March to the last week of June, but the next three months were unusually warm and fine.

EDDERTON.—Fine and warm. Wells seldom or never dry before were completely so for five months up to December. In former years the district has been remarkably free from TSS, but violent storms occurred on the nights of August 8th, 10th, 12th, and on the 13th.

MOIDART, ROSHVEN.—The best summer for agriculture for 30 years. Crops of all kinds good, and well secured.

DIVISION XIX.—NORTHERN COUNTIES.

GOLSPIE, DUNROBIN CASTLE.—A favourable year; the winter mild, and the summer fine, with a fair amount of sunshine; the harvest was good.

WATTEN, H.R.S.—Winter exceptionally fresh and open, spring cold but dry, summer genial, mild, bright, sunny and rather dry; harvest time fine.

IRELAND.

DIVISION XX.—MUNSTER.

DUNMANWAY, COOLKELURE.—January and February very wet; March exceptionally damp and mild; April unusually dry, with E. and N.E winds; May bright and generally dry, with E. winds, but not cold; June abnormally dry, bright, warm, and sunny, with winds between N. and E.; July hot with thundery rains; August very seasonable, warm and calm; September equinoctial gales S.W. to W.; October fine, mild and genial.

CORK, BLACKROCK.—Rainfall 3·86 in. below the average of 19 years. At Ballincollig, near Cork, a person had to *buy* water to boil potatoes in; he *lent* the same to a neighbour for the same purpose, but with strict injunctions that it should be returned; such scarcity of water has not been known in this part for many years. Mean temp. of the year, 52°·5.

CORK, SUNDAY'S WELL ROAD.—The rainfall of the first three months of the year was above the average, but every one of the remaining nine had less than its average; the total of the year was about 8 inches deficient. The river Lee is never before remembered so drained of water as it was in August, September and October, and complaints of great drought were general. On the whole it was a favourable year, free from great extremes, and with very little T and L. Agricultural produce above the average.

KILLARNEY, WOODLAWN.—June was the driest month observed for four years; no scarcity of water supply was experienced in this district.

WATERFORD, SELBORNE.—The year was remarkable for a very small rainfall, and for a large proportion of bright sunny days, on which there was no R. Half the rainfall of the year occurred in the first three months. During the autumn, and quite up to the end of the year, wells and streams were very short, and the want of water occasioned much inconvenience.

WATERFORD, BROOK LODGE.—The springs were very low in the summer, and continued so, many persons being obliged still to cart water at the close of the year. A number of the small streams were perfectly dry. Rainfall 9·60 in. below the average of 10 years.

TIPPERARY, HENRY STREET.—In the second and third quarters of the year the rainfall was much below the average, and there was, in consequence, a great dearth of water, the rivers and streams having dried up, and the wells and springs almost all failed.

BALLINA [KILLALOE].—1884 was one of the best seasons on record as regards the weather.

NENAGH, CASTLE LOUGH.—The first three months were wet, the next six months dry, October average, and the last two months wet. On the whole a splendid season, but the dry weather caused almost a grass and hay famine. June, of late years about the wettest month, proved this year the driest. The total rainfall was about 3 inches below the average of eight years.

HAZELFORT.—Summer fine and dry, and springs lower than they

had been known for many years, not rising before the middle of November. Winter mild and open up to the end of the year.

NEWCASTLE WEST.—January fine to the 20th, then severe to the end; February a severe month; March ordinary; April fine, but frosty at the end; May wild to the 14th, then fair to the close; June splendid weather, though too dry for farmers; July misty; August fine, with frosts in the latter part; September wild; October frosty and fine to the 24th, then stormy; November frosty and fine; December a month of L and wind, with R and sleet to the 20th, then a fine close. A good year for heavy soils like those surrounding this station.

KILKISHEN.—May, August and April rather dry; over 5 inches of R fell both in July and in December.

DIVISION XXI.—LEINSTER.

NEW ROSS, LONGRAIGUE.—Of the total rainfall, 16·44 in., or nearly half, fell in the first three months, and there was no heavy fall in the last nine months, until December 7th, consequently springs never previously known to fail did so, and my well, never before dry, failed for nearly two months to December 22nd; many springs were still dry at the close of the year, and many persons were still drawing water from a distance. In 1870 and 1878, the rainfall was less, viz., 33·14 in. and 33·09 in., yet no such serious failure of water occurred, but in 1870 the rainfall of the first six months and that of the last six were nearly equal, and 5·12 in. fell in October; and in 1878 the rainfall in June was 5·16 in., and there were average falls in August, September, and October.

ENNISCORTHY, BALLYHYLAND.—Up to the close of the year the drains and wells which ran dry in the summer continued so.

GOREY, COURTOWN HOUSE.—Rainfall, the smallest of any year since 1873, when only 29·50 in. fell. Streams were lower during the year than was ever remembered, and complaints of the failure of springs were very general; marl pits, which usually contain water through the summer, generally dried up, but springs in the gravel underlying the marl, and breaking out at the edge of the marl, did not generally fail.

ROSBERCON CASTLE [NEW ROSS].—The rainfall from April to December was unusually small, which injuriously affected the crops,

especially roots; the greater portion of the wells failed, and much inconvenience and in some cases illness was the result.

STONEYFORD, INISNAG.—The first three months had a heavy rainfall, nearly half the total for the year. The other nine months were persistently dry, and June and August were nearly rainless. The soil became desiccated to a great depth, springs failed, and even deep wells dried, and this continued to the close of the year.

LAVISTOWN.—An exceptionally hot dry season; water for all purposes was scarce, and springs were dry for four months.

ENNISKERRY, PARKNASILLOGE.—More than four inches of R fell on the 11th, 12th, and 13th of February, and the ground was wetter in February than it was ever known before; only 11½ inches fell from May to October inclusive.

BRAY, FASSAROE.—A dry year, remarkable for having no heavy fall of R from May to December inclusive.

ABBEY LEIX, BLANDSFORT.—Rainfall 5 inches below the average of ten years.

MONKSTOWN, EASTON LODGE.—The year was the driest for 20 years, especially in August and October, which are usually, with December, the wettest months of the year. The rainfall from January to June was not below the average, but the total fall from July to December was only about half the average.

DUBLIN.—During part of the year unprecedented drought prevailed; springs and streams very generally dried up, causing great inconvenience and necessitating the cartage of water at considerable expense.

DUBLIN, PHŒNIX PARK.—Rainfall 8·87 in. less than the average of 10 years; there was no fall of 1 inch in 24 hours during the year.

GLASNEVIN, BOTANIC GARDENS.—The river Tolka has not been so dry during observer's memory as it was in 1884; scarcely any water passed over the weir from March to December. The ground under trees remained very dry and parched to the end of the year; as there were few continuous rainfalls, the moisture evaporated very rapidly.

TRIM.—January opened with wet, gloomy weather; the middle of the month was dry, and the end wet and stormy. February was fine and frosty to the 8th, after which R, S and storm prevailed. March was varied with fine weather and showery. April was partly cold and showery, and partly dry and frosty. May cold with H and T. June fine and sunny. July, August, and September fine, but

with some showers. October fine, with some frost. November fine to 6th, then R, stormy and gloomy to 11th, when frost set in, and the month closed with S on 29th and R on 30th. In December R and storm predominated, intermixed with fine frosty days. R closed the year with the Boyne flooded.

ATHLONE, TWYFORD.—Springs lower and more dried up than can be remembered before.

STEPHENSTOWN.—Water was very short everywhere, and wells generally failed in the autumn.

DIVISON XXII.—CONNAUGHT.

TUAM, GARDENFIELD.—The first three months were very wet; April and May variable; June, with the exception of the first three days was extremely fine and dry; the summer was much finer and warmer than for several years past, and the later months were mostly wet; the year as a whole was wetter than the average.

LAWDERDALE.—The rivers and wells were never very low, nor was there any shortness of water during the year.

DIVISION XXIII.—ULSTER.

ENNISKILLEN, FLORENCE COURT.—Rainfall quite up to the average. January, February, and March, were very wet, April, May and June dry and favourable to crops, July, August, September and October, were moderately dry, November and December, very wet.

EDWARD STREET STATION [NEWRY].—The lake, about 160 acres in area, from which the town is supplied, fell lower than it had done since 1872, and rose only very slowly after October, the supply from streams flowing into it being very limited.

BRYANSFORD.—The reservoir at Lough Island Reavy, which supplies the river Bann in dry weather, was lower than had ever been known before, and many wells were dry.

BELFAST, NEW BARNSLEY.—The first quarter of the year was stormy with S and R but little frost; the second quarter was very fine, April and June, being exceptionally dry, but a good deal of R fell in the early part of May. Moderate rains in July and August did a vast amount of good, vegetation making rapid progress, and September though showery was not prejudicial to the crops. In

October the land was very dry and the springs failed fast; November was comparatively dry with a fall of six inches of S on 30th, the first 19 days of December were very wet, but the remainder was fine and quiet.

LIMAVADY, DRENAGH.—A fine summer with high temp.; the last three months of the year very wet.

COLERAINE.—With the exception of 1882, the largest rainfall recorded here; January and December were unusually wet, while June was very dry.

STEWARTSTOWN, THE SQUARE.—Rainfall about the average, doing little harm to the farmers.

OMAGH, EDENFEL.—It is many years since the seasons maintained their normal character so closely as they did in 1884. The summer was especially bright, genial, and charming; the winter dull, rainy, and sunless.

RAPHOE, CONVOY HOUSE.—The year was in many respects a fine one; the summer was warm and fine, at the same time the quantity of R that fell was unusually large, especially in the last three months, the total fall being the largest recorded here. There was little frost or S, and little L and T all the year. It was generally a fruitful year, and crops were good.

RAMELTON, KILLYGARVAN.—January was a stormy and wet month with two violent gales; March, April and June were dry, but a good deal of R fell in all the remaining months of the year, and there were TSS in December with L at night. Total rainfall about six inches above the average.

BUNCRANA, SEA VIEW.—The year was very favourable for farming operations, and a bountiful harvest was secured, owing in a great measure to a favourable distribution of R during the summer months. The hay crop, however, was poor in consequence of the want of moisture in the spring; there were no heavy rainfalls during the year.

HEAVY RAINS IN SHORT PERIODS IN 1884.

PENDING that thorough discussion of this branch of rainfall work, leisure for the prosecution of which seems yearly more and more remote, and which perhaps will never come, the only thing to be done is to proceed upon the old lines—lines laid down more than 12 years since, and which subsequent experience has strongly confirmed.

In *British Rainfall*, 1872, p. 105, we stated that—

"From a discussion of the records in the present table and in that given last year, *it would appear* that the fall may be :—

DURATION.	ORDINARY CASES.	EXTREME CASES.	INFERIOR LIMIT ADOPTED IN 1884.
In 5 min.	·30 in.	·55 in.	·20 in.
,, 15 ,,	·50 ,,	1·10 ,,	·35 ,,
,, 30 ,,	·80 ,,	1·25 ,,	·50 ,,
,, 45 ,,	1·00 ,,	1·50 ,,	·60 ,,
,, 1 hour.	1·20 ,,	1·80 ,,	·70 ,,
,, 2 hours.	1·60 ,,	2·20 ,,	·83 ,,

Beyond the thick line, we have added to the foregoing extract the lowest values now admitted into the annual table, such as that on the following page. These values are lower than those suggested in 1872, because in a few early years—1873, 1874, 1876 and 1877—it was found that scarcely any rains rose even to the level of "Ordinary cases." Looking, however, at many diagrams, which it would be too costly to reproduce here, the impression remains that perhaps it would have been well to limit the tables to the first-chosen values. However, the only effect has been to print a few more entries, and the final result may after all prove that it was wise so to do.

The following table, then, contains all the records for 1884 which we have received, and which exceed the limits stated in the last column of the above table. We have prefixed asterisks to the most remarkable entries, but there is not one which has not been previously exceeded. We may, however, say a few words about each, but first we

may as well mention that every one of the starred falls in 1884 was due to a thunderstorm.

July 4th.—Alconbury *(Hunts)*, 1·90 in. in 45 minutes; but at other stations 2·10 in. fell in 20 minutes in 1875; 2·90 in. in 30 minutes in 1880; and 2·10 in 45 minutes in 1870.

July 6th.—Whorlton, Darlington, 2·01 in. in one hour; but besides the above instances 2·53 in. and 2·50 in. respectively fell in one hour at two stations in 1875.

July 9th.—Hitchen, 1·75 in. in one hour, and Sandbeck Park, 2·45 in. in 2 hours 50 minutes; each of these has been surpassed nearly a dozen times.

July 13th.—Broughton, 1·75 in. in one hour; same remark as to the foregoing.

August 9th.—Derby, Duffield, 1·75 in. in 27 minutes. This is an extremely high value. It was exceeded at Harbledown, Canterbury, on August 7th, 1875, when 2·12 in. fell in 20 minutes; at Camden Square, June 23rd, 1878, when 2·22 in. fell in 27 minutes; and thirdly on July 22nd, 1880, when 2·90 in. fell at Ash Hall, Cowbridge, in 30 minutes.

The rest of the falls marked are all inferior in importance to the above, and have been repeatedly surpassed.

Heavy Falls in Short Periods in 1884.

Date.	Division.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
Sept. 21 ...	IX.	Halsteads	·25	...	7	2·13
July 27 ...	VI.	Ross	·23	...	7	2·00
Jan. 25 ...	II.	Acrise	·45	...	10	2·70
Aug. 19 ...	III.	Addington	·30	...	10	1·80
June 13 ...	VI.	Redditch	·77	...	12	3·85
July 27 ...	II.	Reculver	·70	...	15	2·80
July 9 ...	VII.	Thrumpton Hall.....	·70	...	15	2·80
July 9 ...	I.	Camden Road	·62	...	15	2·48
July 9 ...	I.	Camden Square	·52	...	15	2·08
May 12 ...	I.	Lansdowne Crescent	·63	...	18	2·10
May 12 ...	III.	Datchworth Rectory	·40	...	20	1·20
July 5 ...	IV.	Hillington	·90 ?	...	20 ?	2·70
May 12 ...	I.	Kensington, Campden Hill	·89	...	20 ?	2·67
July 9 ..	III.	Haileybury College	·55	...	23	1·43
Aug. 12 ...	XII.	Melrose.....	·48	...	25	1·15
Sept. 4 ...	XVIII.	Lochbroom	·86	...	25 ?	2·06
Aug. 9 ...	VII.	*Derby, Duffield	1·75	...	27 ?	3·89
July 6 ...	III.	Rickmansworth	·85	...	30	1·70
July 11 ...	III.	Assenton	·74	...	30	1·48
June 28 ...	V.	Bincombe House.....	·70	...	30	1·40

Heavy Falls in Short Periods in 1884 *(continued).*

Date.	Division.	Station.	Amount.	Duration.		Rate per hour.
			in.	hr.	min.	in.
July 13 ...	VII.	Mansfield	·69	...	30	1·38
Aug. 9 ...	VII.	*Milford	1·30	...	35	2·23
July 13 ...	X.	Copy Hill.....	·76	...	35	1·31
July 4 ...	III.	*Alconbury	1·90	...	45	2·53
Aug. 9 ...	IX.	*Doncaster, Hatfield	1·29	...	45	1·72
July 6 ...	X.	*Whorlton.....	2·01	1	0	2·01
July 9 ...	III.	*Hitchen	1·75	1	0	1·75
July 13 ...	VIII.	*Broughton	1·75	1	0	1·75
July 5 ..	XXIII.	Killygarvan...	1·06	1	0	1·06
Aug. 12	XVI.	Newton Bank	1·03	1	0	1·03
July 5 ...	XX.	Kilkishen	·80	1	0	·80
Aug. 9 ...	III.	Throcking Rectory.....	·80	1	0	·80
July 27 ...	VI.	Willey Rectory	1·30	1	15	1·04
July 4 ...	IX.	Wold Newton	·98	1	15	·78
July 9 ...	VII.	Hodsock Priory	1·34	1	20	1·00
July 13 ..	VIII.	Broughton Hall	1·50	1	25	1·06
Aug. 12 ...	IV.	*Yarmouth, Dene Side ...	1·73	1	30	1·15
June 28 ...	V.	Stowell Rectory.....	1·42	2	0	·71
Feb. 20 ...	XX.	Newcastle West	1·21	2	0	·61
Jan. 26 ..	V.	Ashburton, Druid	1·19	2	0	·60
June 28 ...	V.	Beaminster	1·14	2	0	·57
Aug. 9 ...	VI.	Longton	1·63	2	30	·65
July 9 ...	IX.	*Sandbeck Park	2·45	2	50	·86
June 28 ...	VI.	Frampton Cotterell	1·76	3	0 ?	·59
Aug. 9 ...	VII.	Cropwell Grove	1·57	4	0	·39
June 28 ...	VI.	Cheltenham.....	1·62	4	15 ?	·38
June 28 ...	VI.	Hampnett Rectory	1·82	4	50 ?	·38
July 4 ...	X.	Unthank	2·01	6	0	·34
June 28 ...	VI.	Hatherop Rectory	2·01	9	0	·22
Sept. 3 & 4	IV.	Rendlesham Hall	2·27	9	30	·24
Sept. 3 ...	II.	Gowdhurst Vic.	2·42	10	0	·24
Sept. 3 ...	II.	Tenterden	2·27	11	0	·21
Sept. 3 & 4	IV.	Yarmouth, Dene Side ...	3·79	12	0	·32
Sept. 3 ...	II.	Hoo St. Mary	2·50	13	0	·19
June 28 ...	VI.	Ross, The Graig	2·40	17	0	·14
Sept. 3 & 4	IV.	Southend	2·81	17	0	·17
Sept. 3 & 4	IV.	Diss	2·45	17	30	·14
Sept. 3 & 4	II.	Lower Cousley Wood ...	2·72	18	0	·15
Sept. 3 ...	IV.	Woodbridge, Bank Ho...	3·99	20	0	·20
Nov. 8 ...	XVI.	Stronvar	3·51	20	0	·17
Sept. 4 ...	IV.	Geldeston	2·80	22	0	·13

NOTE.—The ? here, as throughout the whole work, implies doubt, not necessarily error. The observers whose entries are so marked have used the word "about."

Records from Casella's Self-Recording Gauge, and from Pastorelli's Storm Gauge, at Camden Square, London.

The records show but one instance of excessive rain in a short period, and even that one by no means unprecedented. The following are the only short heavy rains which I have noticed, and several of these are quite insignificant; the values are as read off from the sheets of the Casella gauge:—

Date.	Time.	Duration.	Amount.
		h. m.	in.
January 26	2.25 p.m. to 2.40 p.m.	15	·11
January 26	7.15 p.m. ,, 7.30 p.m.	15	·10
February 11	0.10 p.m. ,, 0.30 p.m.	20	·14
May 12	4.35 p.m. ,, 4.45 p.m.	10	·14
June 5	2.30 p.m. ,, 2·45 p.m.	15	·28
June 5	2.30 p.m. ,, 3.30 p.m.	1 0	·42
June 6	4.40 p.m. ,, 4.50 p.m.	10	·10
July 6	4.15 p.m. ,, 4.30 p.m.	15	·22
July 9–(10)	8.42 a.m. ,, 8.57 a.m.	15	·52
August 28	3.40 p.m. ,, 3.45 p.m.	5	·12
September 2	0.25 p.m. ,, 0.35 p.m.	10	·14

Pastorelli's storm gauge gave the following details of the fall of ·52 in. in a quarter of an hour on July 10th, but of course entered to the 9th:—

8·42 a.m. .. 0·00 in.
8.45 a.m. ... 0·17 ,, ... fall in 3 minutes 0·17 in. = 3·40 in. per hour.
8.49 a.m. ... 0·35 ,, ... ,, 4 ,, 0·18 ,, = 2·70 ,, ,, ,,
8.55 a.m. ... 0·50 ,, ... ,, 6 ,, 0·15 ,, = 1·50 ,, ,, ,,

HEAVY FALLS IN 24 HOURS DURING 1884.

In the following pages we deal with only the amounts of **R** falling in the rainfall day, *i.e.*, in the 24 hours ending at 9 a.m. of the following civil day, and almost exclusively with the amounts which are the largest in the year. In order to save time, trouble, circumlocution and printing, the symbol **M** is used throughout to express "Maximum amount in any rainfall day during the year."

Part I.—Chronicle.

In this section we give a running commentary upon the principal **M** during the year, but as there are nearly 1,700 such values, it is obvious that a selection has to be made. This, for some few years, has been effected by noticing as important only those daily rains which, at some one station, either amounted to (1) 2·00 in. or when (2) the fall amounted to more than 6 per cent. of the total fall in the year. Looking, however, to the large number which exceed even those limits, it is a question whether in future it may not be well to raise the limit of per centage to 7 instead of leaving it at 6.

January 22nd.

Not an exceptional **M**, but as it prevailed over the wet districts of Lancashire, Yorkshire and Wales, there are a few **M**, which claim mention as exceeding 2·00 in. in the 24 hours.

IX.	Dunford Bridge Reservoir ...	2·87 in.	or 6·6 per cent.
,,	Stubden	2·02 ,,	4·4 ,,
,,	Arncliffe	2·55 ,,	4·3 ,,
XI.	Mardy	2·02 ,,	3·5 ,,
	Ystalyfera.....	2·05 ,,	3·0 ,,
	Llanidloes (Broomcliffe).....	2·65 ,,	5·7 ,,
	Bala	2·40 ,,	5·1 ,,
	Pen-y-gwryd.....	3·00 ,,	2·8 ,,

January 27th.

The **M** at several stations in the extreme N. of Scotland.

XVIII.	Barrahead.....	3·00 in.	or 7·9 per cent.
XIX.	Golspie, H.R.S.	2·10 ,,	6·8 ,,

FEBRUARY 1ST.

A general, but not very heavy rain, chiefly over the basins of the Trent and the Humber.

VII.	Sutton-by-the-Sea	1·38 in.	or 7·3	per cent.
,,	Mansfield	1·63 ,,	6·5	,,
,,	Tuxford	1·12 ,,	6·2	,,
,,	Lindway Reservoir	1·25 ,,	6·2	,,
IX.	South Milford	1·26 ,,	7·0	,,
,,	Esholt	1·86 ,,	7·2	,,
,,	Wold Newton	2·63 ,,	6·7	,,
,,	Guisley, Transfield Lodge	1·68 ,,	6·7	,,

FEBRUARY 12TH.

An unimportant M, chiefly over the Irish Channel.

XI.	Castle Malgwyn	2·61 in.	or 5·8	per cent.
XII.	Cargen [Dumfries]	2·12 ,,	4·8	,,
XVII.	Braemar	2·10 ,,	4·8	,,
XXI.	Parknasilloge	2·05 ,,	4·5	,,

MARCH 2ND.

The M at a few stations in the N.E. of Ireland.

XXIII.	Lough Island Reavy	2·50 in.	or 6·1	per cent.

MARCH 3RD.

One of the most extensive falls in the year. The M prevailed chiefly in the S.W. of England, but included nearly all counties south-west of a line from London to Coventry, and thence to Pembroke.

II.	Singleton Rectory	1·90 in.	or 6·6	per cent.
,,	Cocking	2·30 ,,	7·7	,,
,,	Newport, Isle of Wight	1·64 ,,	6·1	,,
,,	Christchurch	1·35 ,,	6·1	,,
,,	Horndean	1·97 ,,	7·3	,,
,,	Bishops Waltham	1·67 ,,	6·2	,,
,,	Droxford	1·70 ,,	6·1	,,
,,	Petersfield, Castle House	2·30 ,,	7·9	,,
,,	Cheriton	1·65 ,,	6·3	,,
,,	Ovington	1·53 ,,	6·1	,,
,,	Harestock	1·47 ,,	6·1	,,
III.	Brackley	1·40 ,,	6·1	,,
V.	Bloxworth	1·92 ,,	6·9	,,
,,	Beaminster	2·22 ,,	6·5	,,
,,	Whatcombe	1·95 ,,	6·3	,,
,,	Minterne	2·10 ,,	5·5	,,
,,	Melbury	2·10 ,,	6·0	,,
,,	Chedington	2·20 ,,	6·1	,,
,,	Bossell Park	2·10 ,,	3·8	,,
,,	Holne Vicarage	2·73 ,,	4·6	,,
,,	Cator Court	2·03 ,,	3·4	,,
,,	Gittisham	2·04 ,,	6·2	,,
,,	Axminster	2·07 ,,	6·3	,,
,,	Cricket St. Thomas	2·09 ,,	6·5	,,
,,	Bincombe House	2·05 ,,	6·6	,,

MARCH 4TH.

The **M** at about seventy stations, chiefly in Lancashire, Yorkshire, and North Wales, but the amounts generally quite unimportant.

X.	Brinkburn	1·45 in.	or 6·6 per cent.
,,	Seaham Hall.....	1·55 ,,	6·7 ,,
XI.	Dolgelly.....	3·27 ,,	5·8 ,,

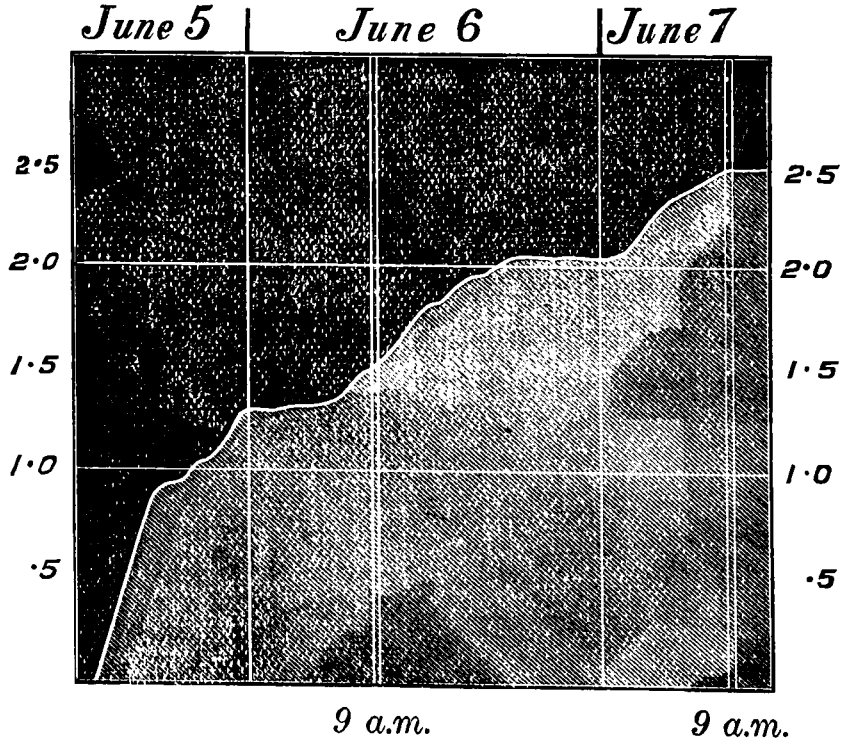
MAY 8TH.

The **M** at about a dozen stations in the English Lake District.

VIII.	Monk Coniston Park	2·06 in.	or 2·5 per cent.
X.	Seathwaite	6·78 ,,	5·0 ,,
,,	Elterwater, Woodlands	2·15 ,,	2·4 ,,
,,	Ambleside, Lesketh Howe ...	2·02 ,,	2·4 ,,
,,	Grasmere, High Close	2·03 ,,	2·6 ,,

JUNE 5TH & 6TH.

The **M** under this date are awkwardly divided, as they really represent portions of one nearly continuous heavy rain, lasting approximately from 2 p.m. on the 5th to 9 a.m. on the 7th. The general character of the rain may be seen from the annexed diagram, which is drawn from the sheets of the self-recording gauge at Camden Square. This diagram shows that the rain began about 2.20 p.m. on June 5th, and that at first the fall was heavy, being for three hours upwards of 0·25 in. an hour; up to 1 a.m. (6th)



1·30 in. had fallen, it then ceased till 6 a.m., when steady rain followed for 12 hours, afterwards came a dry period of seven hours, and then light rain from 1 to 9 a.m. (7th), when it finally ceased. The total fall is therefore divided by the rainfall day—9 a.m.—into two nearly equal portions, 1·47 in. falling to June 5th and 1·00 in. to June 6th.

These being the facts of the case, it seems that the wisest plan will be to depart slightly from the usual form of table and give not *merely* the **M**, but in as many cases as is conveniently practicable the fall on both days and the total for the two days.

Div.	Station.	June 5th. Amount.	Per cent.	June 6th. Amount.	Per cent.	Total in two days.
		in.		in.		in.
I.	Isleworth, Spring Grove	1·37	7·6	·35	2·0	1·72
,,	Westminster, Spring Gardens	1·23	6·5	·89	4·6	2·12
,,	London, Springfield Road ...	·73	3·6	1·22	6·1	1·95
,,	,, Camden Square	1·47	7·3	1·00	4·9	2·47
,,	,, Camden Road	1·50	7·5	1·00	5·0	2·50
,,	Hackney, Richmond Road ...	1·48	8·2			
,,	Holloway, Manor Road	1·62	7·7			
,,	Hampstead, Kidderpore Res..	·98	4·6	1·28	6·1	2·26
,,	,, Squires Mt.	1·64	7·5	1·38	6·3	3·02
,,	,, The Pryors	1·62	7·7	1·37	6·4	2·99
,,	Highgate Nurseries	1·70	7·7	1·31	5·9	3·01
,,	Upper Clapton, The Common	1·42	7·5	·65	3·4	2·07
,,	,, ,, Warwick Rd.	1·24	6·2	·70	3·4	1·94
,,	Muswell Hill	1·93	8·0	1·00	4·2	2·93
,,	Finchley, East End	1·73	7·2	1·05	4·3	2·78
,,	Winchmore Hill.....	1·36	6·5			
,,	Enfield, Chase.....	1·78	7·7	·81	3·5	2·59
II.	S. Norwood, Cumberlow	1·18	6·6			
,,	Deptford, Pumping Station...	1·62	8·1	·58	2·8	2·20
,,	Osborne, I. of Wight	·01	0·0	1·66	6·9	1·67
,,	Yattendon	1·37	6·5	·75	3·5	2·12
III.	St. Albans, Gorhambury			1·58	6·6	
,,	Haileybury	1·40	7·4	·78	4·0	2·18
,,	Ware.....	1·22	6·8	·52	2·9	1·74
,,	Ampthill	1·54	7·7			
,,	Haynes.....	1·13	6·3	·20	1·1	1·33
,,	Cardington	1·21	7·1	·12	0·7	1·33
,,	Bedford	1·12	6·6			
IV.	Canning Town	·97	6·5	·57	3·8	1·54
,,	Little Ilford	1·10	6·5	·69	4·1	1·79
,,	Harlow, Moor Hall	1·22	6·8	·57	3·1	1·79
V.	Steeple Ashton	2·00	8·0	·40	1·6	2·40

The irregularity shown by this table is at once suggestive of a want of uniformity in the hour of measurement, but *that* is not the cause. The true explanation lies in the fact that the total was produced by two rains, each of which extended over only a part of the area, and evidence of this is afforded by the irregularity in the gross amounts for the two days.

JUNE 7TH.

An unimportant M in Cheshire and S.W. Lancashire :—

VIII.	Chester, Rowton Grange	1·48 in.	or 6·4 per cent.
,,	Frodsham, Fox Hill	1·48 ,,	6·2 ,,
,,	Runcorn, Weston Point	1·75 ,,	6·3 ,,

JUNE 28TH.

The M occurred at more stations upon this date than upon any other day in the year, but the fall was exceptional only in some parts of Gloucestershire.

I.	Denford Park	1·69 in.	or 7·0 per cent.
II.	Lambourne	1·83 ,,	7·3 ,,
,,	Faringdon.....	1·73 ,,	7·5 ,,
V.	Mells Rectory.....	2·03 ,,	5·4 ,,
,,	Chew Magna	2·05 ,,	5·9 ,,
,,	Bristol Docks	2·00 ,,	6·9 ,,
VI.	Bristol, Small Street	2·42 ,,	8·3 ,,
,,	Clifton, South Parade	2·44 ,,	7·4 ,,
,,	Over Court Park..... ...	2·15 ,,	6·5 ,,
,,	,, ,, Garden.....	2·14 ,,	6·7 ,,
,,	Kempsford	1·55 ,,	7·0 ,,
,,	Lechlade	2·40 ,,	10·4 ,,
,,	Fairford, Park Farm	2·30 ,,	10·0 ,,
,,	Hatherop Rectory	2·01 ,,	8·0 ,,
,,	Great Barrington	1·84 ,,	6·6 ,,
,,	Hampnett Rectory..	1·82 ,,	7·3 ,,
,,	Hampen	1·81 ,,	7·0 ,,
,,	Bourton.....	2·00 ,,	7·1 ,,
,,	Battledown	1·62 ,,	6·7 ,,
,,	Cheltenham, Southam Villa...	1·62 ,,	6·7 ,,
,,	Longborough	1·85 ,,	6·8 ,,
,,	Upper Lode.....	1·64 ,,	6·8 ,,
,,	Brockhampton Court.....	1·30 ,,	6·2 ,,
,,	Canon Frome Vicarage	1·55 ,,	6·4 ,,
,,	Blockley	2·05 ,,	7·9 ,,
,,	Malvern Wells.....	1·78 ,,	7·1 ,,
,,	Evesham Lansdowne	1·46 ,,	6·6 ,,
,,	,, Bank	1·50 ,,	6·5 ,,
,,	West Malvern.....	1·70 ,,	6·5 ,,
,,	Great Malvern, Hornyold T...	1·78 ,,	7·1 ,,
,,	Madresfield Rectory	1·89 ,,	7·6 ,,
,,	,, Court	1·90 ,,	7·6 ,,
,,	Diglis Lock	1·54 ,,	6·2 ,,
,,	Stoke Reformatory.....	1·45 ,,	6·9 ,,
,,	Beckford	1·62 ,,	7·0 ,,
XI.	Felindre, Lliw Res.	2·18 ,,	3·9 ,,
,,	Shirenewton Hall	2·55 ,,	6·2 ,,
,,	Morriston.....	2·10 ,,	4·0 ,,

JULY 4TH.

The M at very few stations, and those few very widely scattered, as will be seen from the following list :—

III.	Alconbury (*Huntingdon*)	1·90 in.	or 11·1 per cent.
VII.	Saltersford (*Lincoln*)	1·14 ,,	6·3 ,,
X.	Shaft Hill (*Northumberland*)	2·30 ,,	6·1 ,,
,,	Silloth (*Cumberland*).....	2·07 ,,	5·6 ,,

JULY 5TH.

Another case of isolated M.

IV.	Dunham (*Norfolk*)	1·56 in.	or 6·5 per cent.
IX.	Skipton (*Yorks*)	2·02 ,,	5·6 ,,
,,	Thirsk ,, ...	1·65 ,,	6·6 ,,
,,	,, ,, ...	1·95 ,,	7·8 ,,

JULY 6TH.

The M at about 20 stations, chiefly near Chester and Newcastle-upon-Tyne.

VIII.	Chester, Newton Nurseries	1·79 in.	or 6·6 per cent.
,,	,, Abbots Hayes	1·72 ,,	6·9 ,,
X.	Newcastle-on-Tyne, Gladstone Terrace	1·44 ,,	6·8 ,,

JULY 9TH.

The M at about 70 stations chiefly in a narrow belt reaching from Hertfordshire to South Yorkshire. This being a dry district, the per centages are necessarily high, and hence with the by no means unprecedented falls of from 2 to 2½ inches, we get the rare per centages shown in the following table, such as *e.g.*, The Lodge, Sandy, where one-ninth of the whole rain during the year fell on this one day; or the still more marked case of Sandbeck Park, Tickhill, where the fall was 2·45 in., which is almost precisely *one-eighth* of the entire yearly fall.

III.	Datchworth Rectory	1·37 in.	or 7·2 per cent.
,,	Knebworth	1·73 ,,	7·5 ,,
,,	Bennington Lodge	1·60 ,,	8·0 ,,
,,	Hitchen	1·75 ,,	8·3 ,,
,,	Throcking	1·60 ,,	8·9 ,,
,,	Weston Manor	2·08 ,,	9·9 ,,
,,	Northampton, The Holly's ...	1·20 ,,	6·3 ,,
,,	Kettering.....	1·99 ,,	10·0 ,,
,,	Stotfold	2·07 ,,	10·8 ,,
,,	Old Warden	1·39 ,,	8·2 ,,
,,	Sandy Rectory	1·90 ,,	10·7 ,,
,,	,, The Lodge	2·00 ,,	11·4 ,,
,,	Tempsford Hall	1·43 ,,	8·4 ,,
,,	Odsey Grange	1·44 ,,	9·0 ,,
,,	Filgrave Rectory	1·26 ,,	6·3 ,,
VII.	Thoresby Gardens	1·70 ,,	7·7 ,,
,,	Osberton	2·35 ,,	10·2 ,,
,,	Hodsock Priory	2·04 ,,	10·7 ,,
IX.	Sandbeck Park	2·45 ,,	12·3 ,,
,,	Thrybergh	1·57 ,,	8·3 ,,
,,	Firsby	2·40 ,,	10·0 ,,
,,	Wath-upon-Dearne,ChapelSt.	1·62 ,,	7·7 ,,
,,	,, ,,	1·50 ,,	7·1 ,,
,,	LeedsHolbeck,(Marshall&Co.)	1·48 ,,	7·0 ,,
,,	,, ,, (Water Works)	1·72 ,,	7·5 ,,
,,	Woodhouse Moor	1·47 ,,	6·4 ,,

JULY 10TH.

An unimportant **M**, nearly in the same district as that of the previous day.

VII.	Thorpe Arnold	1·43 in.	or 7·2	per cent.
,,	Ayston	1·50 ,,	6·8	,,
,,	Ryhall	1·11 ,,	6·5	,,
,,	Wytham-on-the-Hill	1·08 ,,	6·4	,,
,,	Stubton	1·09 ,,	6·1	,,
,,	Eastwood Colliery	1·49 ,,	7·5	,,
,,	,, ,, ...	1·52 ,,	6·3	,,
,,	Newark	1·08 ,,	6·4	,,
IX.	York Phil. Soc.	1·63 ,,	8·2	,,
,,	Aldborough	1·46 ,,	6·1	,,
,,	Thorpe Perrow.....	1·80 ,,	7·5	,,
,,	East Layton	1·66 ,,	6·6	,,
,,	Forcett Park.....	1·60 ,,	6·7	,,
,,	Baldersby	2·09 ,,	8·0	,,
X.	Unthank Hall	2·10 ,,	5·5	,,
,,	Ridley	1·65 ,,	6·6	,,
XIV.	Lochwood	2·35 ,,	6·7	,,

AUGUST 9TH.

The **M** at a few stations in or near Nottinghamshire.

VII.	N. Level Engine [Thorne, Doncaster]	1·50 in.	or 8·8	per cent.
,,	Cropwell Butler	1·57 ,,	7·9	,,
,,	Duffield.....	1·75 ,,	6·5	,,
IX.	Doncaster, Hatfield	1·29 ,,	9·2	,,

AUGUST 12TH.

Although this was the date of the great Scotch thunderstorm, few of the rain records are at all exceptional.

XIII.	Haddington Asylum	1·72 in.	or 6·9	per cent.
,,	Gilmerton.....	2·30 ,,	8·5	,,
,,	Leith.....	1·63 ,,	6·8	,,
XV.	Killearn, Old Ballikinrain ...	2·89 ,,	4·2	,,
XVI.	St. Andrew's Priory	1·50 ,,	7·5	,,
,,	Kilmany, Mountquhanie	1·70 ,,	6·3	,,
,,	Lanrick Castle	2·60 ,,	4·5	,,
,,	Auchterarder, Colquhalzie ...	2·40 ,,	5·5	,,

AUGUST 28TH.

The **M** at a few stations in the extreme N. of Scotland.

XIX.	Wick, H.R.S.	1·82 in.	or 6·1	per cent.
,,	Watten, H.R.S.	2·17 ,,	7·8	,,
,,	Nosshead (B.N.L.)..	1·82 ,,	7·3	,,
,,	Dunnethead (B.N.L.)	2·40 ,,	6·9	,,

AUGUST 31ST.

The **M** at upwards of 100 stations, chiefly in the centre and west of England, but generally not of exceptional amount.

III.	Towcester, Easton Neston.....	1·18 in.	or 6·2 per cent.
,,	Rothwell	1·13 ,,	7·5 ,,
,,	Stanground Sluice	1·03 ,,	7·4 ,,
VI.	Penkridge, Rodbaston	1·84 ,,	7·4 ,,
,,	Alrewas	1·27 ,,	6·7 ,,
VII.	Nottingham, Strelley Hall ...	1·38 ,,	6·6 ,,
,,	E. Bridgford	1·22 ,,	6·1 ,,
,,	Derby, Christ Church Vic. ...	1·66 ,,	7·2 ,,
IX.	Hornsea, E. Gate House	·98 ,,	6·1 ,,
XI.	Tredegar, Bedwellty House...	2·17 ,,	3·4 ,,
,,	Neath, Glyncorrwg	2·94 ,,	3·4 ,,

SEPTEMBER 3RD.

This was probably the most important **M** of the year. As the following table shows, it was the **M** over a large part of the S.E. of England, and in Kent and the East of Essex both the amounts and the per centages were in many cases large.

II.	Reigate (Dover's Lodge)	1·46 in.	or 6·3 per cent.
,,	Nutfield Priory	1·32 ,,	6·3 ,,
,,	Reigate Hill.....	1·52 ,,	6·3 ,,
,,	Botley Hill Farm	1·75 ,,	7·0 ,,
,,	Sandhurst Rectory	2·03 ,,	8·5 ,,
,,	Tenterden	2·27 ,,	9·5 ,,
,,	Swattenden	2·66 ,,	11·1 ,,
,,	Hartley.....	2·51 ,,	10·0 ,,
,,	Gowdhurst Vic.	2·42 ,,	11·8 ,,
,,	Bethersden	1·59 ,,	6·9 ,,
,,	Tunbridge Wells,CamdenPrk.	2·12 ,,	8·8 ,,
,,	,, Etherton Hill ...	2·07 ,,	9·9 ,,
,,	,, Pembury	2·06 ,,	9·8 ,,
,,	Ashford, Westwell.....	1·40 ,,	6·1 ,,
,,	Maidstone, Hunton Court.....	1·36 ,,	7·2 ,,
,,	,, Tovil House	1·38 ,,	6·6 ,,
,,	,, Lower Tovil	1·39 ,,	7·3 ,,
,,	,, Hospital	1·48 ,,	7·4 ,,
,,	Sheldwich	1·45 ,,	6·6 ,,
,,	Sevenoaks, River Hill	1·52 ,,	6·9 ,,
,,	,, Clare Bank.	1·63 ,,	6·8 ,,
,,	,, Riverhead	1·90 ,,	8·6 ,,
,,	,, Betsom's Hill.	1·90 ,,	7·6 ,,
,,	Bicknor	1·51 ,,	6·6 ,,
,,	Wrotham, The Elms	2·84 ,,	11·2 ,,
,,	Leaves Green	1·52 ,,	6·9 ,,
,,	Rochester, Knights Place.....	1·75 ,,	8·3 ,,
,,	West Wickham	1·20 ,,	6·3 ,,
,,	Rochester, Abbott's Court ...	1·52 ,,	8·0 ,,
,,	Gravesend, Park Place	1·12 ,,	7·5 ,,
,,	Rochester, Higham	1·08 ,,	6·4 ,,
,,	Hoo, St. Mary	1·68 ,,	9·9 ,,
,,	Blackheath	1·12 ,,	6·6 ,,
,,	Worthing, Bedford Row	1·58 ,,	6·6 ,,
,,	Brighton, Kemp Town	1·85 ,,	8·0 ,,
,,	,, Old Steine	2·02 ,,	7·8 ,,
,,	,, W.W., Lewes Road	2·06 ,,	7·9 ,,
,,	Falmer	1·91 ,,	6·8 ,,
,,	Iford.....	2·01 ,,	7·7 ,,
,,	Lewes, Glynde Place.....	1·92 ,,	7·4 ,,

II.	Burgess Hill	1·60 in.	or 6·9 per cent.
,,	Newick, Ketches	1·80 ,,	8·6 ,,
,,	Uckfield	1·84 ,,	8·0 ,,
,,	Hayward's Heath Asylum	1·60 ,,	6·7 ,,
,,	Forest Lodge	1·99 ,,	7·7 ,,
,,	Crowborough Observatory	2·06 ,,	7·4 ,,
,,	Lower Cousley Wood	2·08 ,,	8·7 ,,
,,	Frant, Myrtle Villa	2·02 ,,	7·8 ,,
,,	Leyswood	1·88 ,,	7·0 ,,
IV.	Shoeburyness	1·35 ,,	9·0 ,,
,,	Southend	1·85 ,,	11·2 ,,
,,	Norton Hall	1·53 ,,	9·0 ,,
,,	Down Hall	1·88 ,,	10·4 ,,
,,	Clacton-on-Sea	2·35 ,,	12·7 ,,
,,	Little Braxted	1·30 ,,	7·6 ,,
,,	Earl's Colne	1·19 ,,	7·0 ,,
,,	Lower Park	1·50 ,,	8·3 ,,
,,	Nayland, Tendring Hall	2·00 ,,	11·6 ,,
,,	Stutton, Alton Hall	2·11 ,,	11·7 ,,
,,	Orwell Park	2·06 ,,	9·8 ,,
,,	Belstead Hall	1·59 ,,	9·4 ,,
,,	Woodbridge, Bank House	2·19 ,,	10·0 ,,
,,	,, Grange	2·21 ,,	10·5 ,,
,,	Rendlesham	2·27 ,,	11·0 ,,

SEPTEMBER 4TH.

Another important **M**, partly covering, but chiefly a little to the north of, the area visited on the 3rd. We give first the usual table, and in so doing must call attention to the extremely unusual character of many of the amounts and per centages; there are nine stations each with more than 10 per cent. of the yearly total falling on this day.

III.	Upwell, Euximoor House	1·14 in.	or 6·3 per cent.
IV.	Wetherden Rect.	1·29 ,,	7·2 ,,
,,	Stradbroke Vic.	1·97 ,,	9·9 ,,
,,	Weybread Vic.	1·66 ,,	8·7 ,,
,,	Sotterley Hall	1·98 ,,	8·3 ,,
,,	Lowestoft, Kirkley	2·46 ,,	10·8 ,,
,,	,, Bryn y Mor	2·16 ,,	9·8 ,,
,,	,, Somerleyton	2·08 ,,	8·9 ,,
,,	Diss	1·65 ,,	8·3 ,,
,,	Thelveton	2·66 ,,	13·8 ,,
,,	Rushall Vic.	2·21 ,,	10·5 ,,
,,	Geldeston (38 ft.)	1·93 ,,	9·2 ,,
,,	,, (49 ft.)	1·90 ,,	8·6 ,,
,,	Ellingham	1·91 ,,	9·6 ,,
,,	W. Dereham	1·22 ,,	6·4 ,,
,,	Yarmouth	2·57 ,,	10·7 ,,
,,	,, Dene Side	2·73 ,,	10·4 ,,
,,	Halvergate Hall	2·57 ,,	12·5 ,,
,,	Postwick	1·66 ,,	7·9 ,,
,,	Carrow House	1·72 ,,	8·2 ,,
,,	Acle	1·80 ,,	9·5 ,,
,,	Oby	2·09 ,,	10·5 ,,
,,	Worstead Vic.	2·53 ,,	11·6 ,,

SEPTEMBER 3RD AND 4TH.

The rainfall on these two days over East Suffolk, and small parts of the East of Essex and South-East of Norfolk, was altogether exceptional. We have no recollection of any previous record equalling that sent by Lord Rendlesham, viz., *that the fall in* $32\frac{1}{2}$ *hours or less than* $1\frac{1}{2}$ *days was more than a fifth of the entire yearly fall.* Yet such was the case; the fall was 2·27 in. on the 3rd and 1·87 in. on the 4th; the total was therefore 4·14 in., and 4·14 in. × 5 = 20·70 in., whereas the yearly total was 20·69 in. Nor does a shadow of suspicion rest upon the record; the gauge is a good one, the observations have always been carefully made, and the above figures are thoroughly supported by the surrounding stations.

It will be remembered that the district over which this rain prevailed is a very dry one, having a mean fall of perhaps 24 in. in a year. Yet in this district, in a dry year, we have 16 stations with 3 in. or upwards in two days, and two stations with upwards of 4 in. Hence the importance of putting upon record the following actual facts.

The difference of type draws attention to the absolute maximum, which will be seen to have been on the 3rd at all southern, and on the 4th at all northern stations; the stations are grouped according to the magnitude of the total fall in the two days.

	3rd. in.	4th. in.	Total. in.	Per Cent.
Lowestoft, Kirkley	1·72	*2·46*	4·18	18·5
Rendlesham Hall	*2·27*	1·87	4·14	20·0
Woodbridge, Bank House	*2·19*	1·80	3·99	18·3
Yarmouth, Dene Side	1·06	*2·73*	3·79	14·4
Woodbridge, The Grange	*2·21*	1·47	3·68	17·4
Beccles, Sotterley Hall	1·63	*1·98*	3·61	15·1
Lowestoft, Bryn-y-Mor	1·37	*2·16*	3·53	15·9
Ipswich, Orwell Park	*2·06*	1·38	3·44	16·2
Beccles, Ellough Rectory	1·50	*1·90*	3·40	15·8
Lowestoft, Somerleyton	1·30	*2·08*	3·38	14·4
Clacton-on-Sea	*2·35*	·89	3·24	17·5
Geldeston [Beccles] 49 ft.	1·20	*1·90*	3·10	14·3
Harleston, Rushall	·87	*2·21*	3·08	14·4
Yarmouth, Halvergate Hall	·44	*2·57*	3·01	14·6
Geldeston [Beccles] (38 ft.)	1·07	*1·93*	3·00	14·1

SEPTEMBER 6TH.

The **M** at a considerable number of stations in the South of Scotland and in Ireland, but not a heavy fall.

XIII.	Haddington, East Linton	2·00 in.	or 10·5 per cent.
XXII.	Enniskillen, Florence Court	2·13 ,,	4·3 ,,

OCTOBER 9TH.

The M at a few stations in the S.E. of England, and also at some in the N.E. of Scotland.

XVII.	Keith, H.R.S.	1·60 in.	or 6·2	per cent.
,,	Wester Elchies School	1·66 ,,	6·2	,,
,,	,, ,, Garden	1·86 ,,	6·9	,,

OCTOBER 10TH.

The M in the Northern parts of Norfolk where the fall of September 4th was unimportant.

IV.	Bocking	1·60 in.	or 8·9	per cent.
,,	Framlingham	1·48 ,,	6·7	,,
,,	Hapton	2·22 ,,	10·8	,,
,,	Pickenham Hall	1·38 ,,	6·9	,,
,,	Thorpe, Hamlet	1·71 ,,	8·1	,,
,,	Norwich, St. Cath. Close	1·74 ,,	8·3	,,
,,	,, Essex Street	1·67 ,,	8·4	,,
,,	Swaffham Grammar School	1·45 ,,	6·9	,,
,,	Mattishall	1·92 ,,	9·6	,,
,,	Honingham Hall	1·84 ,,	9·7	,,
,,	Cossey	2·00 ,,	9·5	,,
,,	Sprowston	1·90 ,,	9·5	,,
,,	E. Dereham	1·48 ,,	7·8	,,
,,	,,	1·41 ,,	7·8	,,
,,	Drayton	1·85 ,,	9·7	,,
,,	Felthorpe	2·05 ,,	9·3	,,
,,	Cawston Rect.	2·24 ,,	9·7	,,
,,	Fulmodeston	2·00 ,,	8·3	,,
,,	Letheringsett Hall	1·69 ,,	7·7	,,
,,	Holkham	1·42 ,,	7·1	,,
,,	Wells-next-Sea	1·79 ,,	8·5	,,
,,	Mulbarton	1·86 ,,	9·8	,,

OCTOBER 31ST.

The M (but not a heavy one) along the West Coast of Ireland.

XX.	Miltown Malbay (*Clare*)	2·02 in.	or 4·6	per cent.

NOVEMBER 6TH.

At a few scattered stations in Ireland the M occurred on this day. but the falls were quite unimportant.

XXIII.	Newcastle (Down)	2·24 in.	or 4·4	per cent.

NOVEMBER 8TH.*

The M at ten stations in the West of Scotland, some of the amounts being large.

XV.	Ballachulish	2·75 in.	or 2·8	per cent.
,,	Laudale	2·61 ,,	2·6	,,
,,	Tarbert, Stonefield	2·03 ,,	2·4	,,
,,	Holy Loch, Rosmor	3·23 ,,	3·6	,,
XVI.	Balquhidder, Stronvar	3·51 ,,	3·7	,,
XVIII.	Strome Ferry	2·07 ,,	2·8	,,
,,	Loch Shiel	5·21 ,,	4·1	,,
,,	Oronsay, B.N.L.	2·47?,,	3·7	,,
,,	Kyle Akin, B.N.L.	3·15?,,	4·4	,,

* See *Met. Mag.*, Vol. XIX., p. 167.

NOVEMBER 11TH.

Another M in the West of Scotland and at a few Irish stations.

XV.	McArthur's Head, B.N.L. ...	3·10 in. ?	or 4·1 per cent.
,,	Gruinart (Islay)	2·28 ,,	4·9 ,,
,,	Quinish (Mull)	2·05 ,,	3·0 ,,
XX.	Kenmare, Derreen	2·05 ,,	3·1 ,,

DECEMBER 10TH.

The M at a few stations in the Eastern portion of the English Lake District.

X.	Shap, Copy Hill	2·17 in.	or 3·8 per cent.

PART II.—ABSTRACT.

IN the following five tables are given abstracts of the leading characteristics of the heavy falls in 24 hours—(Rainfall "days" ending at 9 a.m.) during 1884—arranged on the plan which has now been regularly adopted for twenty consecutive years.

Table I. gives the 16 stations at which the largest amounts fell. This list is, almost as a matter of course, headed by the very wet station of Seathwaite with 6·78 inches (172^{mm}) in one day; this is followed by Glenaladale, a station in the west of Scotland, with 5·21 inches, and these by others chiefly in Wales or the west of Scotland.

Table II. gives the mean of these values, and also the mean of similar ones for each of the previous twenty years. From this we learn.

(1) That the fall of 6·78 in. at Seathwaite is the heaviest fall recorded in the British Isles at any station on any day for 20 years.

(2) That, with the exception of the Seathwaite and Glenaladale falls, the Maximum falls are not remarkable, they average ·11 in. less than usual, although they occurred at wet stations.

Table III. resembles Table I., but contains the stations at which the greatest per centage—*i.e.*, the largest proportion of the yearly total—fell in one day. A glance at the first column will show how largely the values in this table depend upon the rain of September 3rd and 4th, which has been already fully reported upon.

Table IV. is an abstract of Table III., and shows that these percentages are higher, not only than the average but, than in any

previous year. Such high percentages at stations with (on the average) 20·1 inches of rainfall is without precedent in the 20 years.

Table VI. deals with all the records which report the absolute M of the year—with no fewer than 1691 records—the results are

(1) That the Average per centage (4·8) is above the average, though it has been equalled or exceeded in five years.

(2) That the Average amount of the M (1·32) is the lowest which has yet occurred excepting in the solitary year 1870.

(3) That the 1691 stations whose records have been used in this branch of the work had a mean rainfall of only 28 inches. As these stations are scattered very fairly all over the country this value is of some importance, as giving probably a close approximation to the true mean rainfall of the British Isles in 1884. On similar data the mean fall is 35 inches which of course makes 1884 20 per cent. below the average. The sixth column of the same table makes 1884 23 per cent. below the average, so the two are in fairly close agreement. It will be interesting to compare these values with those which we shall obtain when on a subsequent page we deal with the total falls.

THE NUMBER OF DAYS WITH RAIN.

OUR readers are probably aware that we regard the information which we are able to give upon this subject as the least satisfactory part of our work. Still we thought that some light upon the characteristics of the year might be obtained by examining a few good records made at nearly equal distances in various parts of England and Wales, Scotland and Ireland. The result is given in the following table :—

Country.	Div.	County.	Station.	Average. 1874-83.	1884.	Deficieny.	Excess.
England ...	I.	Middlesex...	Camden Sq.	171	150	21	...
,, ...	IV.	Norfolk	Geldeston ...	187	159	28	...
,, ..	V.	Devon	Holne Vic...	222	203	19	...
,, ...	VI.	Hereford ...	Ross	192	179	13	...
,, ...	IX.	York, W.R.	Redmires ...	213	199	14	...
,, ...	X.	Westmor'lnd	High Close..	217	218	...	1
Wales.....	XI.	Glamorgan..	Cardiff	200	179	21	...
,, ...	,,	Merioneth...	Dolgelly..	209	192	17	...
Scotland...	XIV.	Lanark	Cambuslang	198	209	..	11
,, ...	XVIII.	Ross	Ardross Cas.	203	213	...	10
Ireland ...	XX.	Cork	Glenville ...	215	225	...	10
,, ...	XXIII.	Down	Seaforde.....	196	215	...	19

TABLE I.—*Maximum Falls in* 1884.

Date.	Div.	Stations.	Depth.	Per Cent.	Fall in year.
May 8 ...	X.	Seathwaite	6·78in.	5·0	136·43 in.
Nov. 8 ...	XVIII.	Loch Shiel (Glenaladale).....	5·21 ,,	4·1	127·33 ,,
July 10 ...	XIV.	Port Glasgow	3·60 ,,	5·3	67·75 ,,
July 10 ...	XIV.	Prospect Hill	3·59 ,,	4·8	75 37 ,,
Nov. 8 ...	XVI.	Balquhidder (Stronvar)	3·51 ,,	3·7	94·30 ,,
March 4 ...	XI.	Dolgelly Nat. School	3·27 ,,	5·8	56·37 ,,
Nov. 8 ...	XV.	Holy Loch (Rosmor)	3·23 ,,	3·6	89·37 ,,
July 10 ..	XIV.	Mansfield	3·16 ,,	3·9	81·59 ,,
Jan. 22 ...	XI.	Pen-y-gwryd	3·00 ,,	2·8	107·00 ,,
Aug. 31 ...	,,	Neath (Glyncorrwg)	2·94 ,,	3·4	87·00 ,,
Aug. 12 ...	XV.	Killearn (Old Ballikinrain)...	2·89 ,,	4·2	68·56 ,,
Jan. 22 ...	IX.	Dunford Bridge Res.	2·87 ,,	6·6	43·51 ,,
Sept. 3 ..	II.	Wrotham (The Elms)	2·84 ,,	11·2	25·36 ,,
July 10 ...	XIV.	Glenbrae	2·80 ,,	3·9	71·80 ,,
Nov. 8 ...	XV.	Ballachulish	2·75 ,,	2·8	100·01 ,,
Mar. 3 ...	V.	Ashburton (Holne Vic)	2·73 ,,	4·6	59·94 ,,

TABLE II.—*Comparison of Maximum Falls with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Depth.	Per Cent.	Mean total fall at these stations.	Depth.	Per Cent.	Station.	Division.
	in.		in.	in.			
1865 ...	3·67	6·4	61·8	6·41	5·5	Seathwaite.....	X.
1866 ...	3·40	4·4	86·2	6·38	3·6	Seathwaite.....	,,
1867 ...	3·17	9·0	42·5	4·78	17·7	Hartlip	II.
1868 ...	3·32	6·1	65·9	5·60	4·8	Camusinas.....	XV.
1869 ...	3·68	5·0	77·7	6·70	4·5	Seathwaite.....	X.
1870 ...	3·20	7·5	43·8	6·00	17·1	Tongue	XIX.
1871 ...	3·08	5·7	61·6	4·24	9·6	Melbury.....	V.
1872 ...	4·10	6·6	73·1	5·82	3·2	Seathwaite.....	X.
1873 ...	2·97	6·2	60·7	4·20	2·9	Seathwaite	,,
1874 ...	3·96	4·6	86·5	5·32	4·4	Bryn Gwynant	XI.
1875 ..	4·52	7·8	63·9	5·33	9·7	NewportW.W.	,,
1876 ...	3·37	5·9	57·6	4·50	5·5	Foffany	XXIII.
1877 ...	3·77	4·6	93·4	4·98	5·3	Skye, Portree..	XVIII.
1878 ...	3·57	7·4	57·2	4·24	8·6	Springfield ...	XI.
1879 ...	3·66	9·5	50·4	4·05	4·1	Little Langdale	X.
1880 ...	3·50	7·7	51·1	4·75	3·9	Seathwaite.....	,,
1881 ...	3·65	4·9	83·1	5·42	4·7	Sligachan	XVIII.
1882 ...	3·28	4·5	84·3	4·51	3·0	Seathwaite ...	X.
1883 ...	3·69	6·1	72·4	5·27	9·0	Glenesmoel ...	XXI.
Mean ...	3·56	6·3	67·0	5·18	6·7	.....	...
1884 ...	3·45	4·7	80·7	6·78	5·0	Seathwaite	X.
Diff. ...	— ·11	—1·6	+13·7	+1·60	—1·7	.....	...

TABLE III.—*Maximum Per Centages in* 1884.

Date.	Div.	Station.	Per Cent.	Depth.	Fall in year.
Sep. 4 ...	IV.	Diss (Thelveton)	13·8	2·66 in.	19·23 in.
,, 3 ...	,,	Clacton-on-Sea	12·7	2·35 ,,	18·52 ,,
,, 4 ..	,,	Yarmouth (Halvergate Hall)	12·5	2·57 ,,	20·60 ,,
July 9 ...	IX.	Tickhill (Sandbeck Park) ...	12·3	2·45 ,,	19·84 ,,
Sep. 3 ...	II.	Gowdhurst Vic.	11·8	2·42 ,,	20·57 ,,
,, 3 ...	IV.	Stutton (Alton Hall)	11·7	2·11 ,,	18·07 ,,
,, 4 ...	,,	N. Walsham (Worstead) ...	11·6	2·53 ,,	21·81 ,,
,, 3 ...	,,	Nayland (Tendring Hall) ...	11·6	2·00 ,,	17·19 ,,
July 9 ...	III.	Sandy Lodge..... ..	11·4	2·00 ,,	17·60 ,,
Sep. 3 ...	II.	Wrotham (The Elms)	11·2	2·84 ,,	25·36 ,,
,, 3 ...	IV.	Southend	11·2	1·85 ,,	16·56 ,,
,, 3 ...	II.	Cranbrook (Swattenden).....	11·1	2·66 ,,	23·87 ,,
July 4 ...	III.	Alconbury	11·1	1·90 ,,	17·20 ,,
Sep. 3 ...	IV.	Rendlesham	11·0	2·27 ,,	20·69 ,,
Oct. 10 ...	,,	Long Stratton (Hapton).....	10·8	2·22 ,,	20·56 ,,
Sep. 4 ...	,,	Lowestoft (Kirkley).....	10·8	2·46 ,,	22·69 ,,

TABLE IV.—*Comparison of Maximum Per Centages with those in previous years.*

	MEAN.			ABSOLUTE.			
Years.	Per Cent.	Depth.	Mean total fall at these Stations.	Per Cent.	Depth.	Station.	Division.
		in.	in.		in.		
1865 ...	9·9	2·62	28·4	13·0	4·40	Fleckney.....	VII.
1866 ...	8·1	2·31	29·3	10·0	2·48	Burton	VI.
1867 ...	11·0	2·85	25·3	17·7	4·78	Hartlip	II.
1868 ...	8·6	2·55	30·1	11·0	4·00	Tongue	XIX.
1869 ...	7·9	2·17	27·9	10·0	3·40	Tillydesk	XVII.
1870 ..	10·0	2·34	22·9	17·1	6·00	Tongue	XIX.
1871 ...	9·0	2·43	26·8	11·5	3·62	Warter	IX.
1872 ...	8·1	3·43	42·5	10·0	3·70	Hillington Hall	IV.
1873 ...	9·7	2·39	24·7	11·8	2·77	Oscott	VI.
1874 ...	9·2	2·16	23·7	11·9	2·50	Welwyn.. [Hall	III.
1875 ...	10·2	3·76	37·5	13·2	3·95	Letheringsett	IV.
1876 ...	7·4	2·49	33·7	8·5	3·70	Cragside	X.
1877 ...	8·2	2·73	33·1	9·3	3·09	Wellington.....	VI.
1878 ...	10·2	3·05	30·0	11·8	3·90	Haverstock Hill	I.
1879 ...	10·9	3·31	30·5	12·3	3·80	CambridgeM. V.	III.
1880 ...	9·5	3·06	32·3	11·7	3·34	Marmont Pr. L.	III.
1881 ...	8·1	2·42	30·3	10·6	3·20	Aboyne Castle..	XVII.
1882 ...	7·7	2·54	33·4	9·1	2·80	Bothalhaugh ...	X.
1883 ...	9·7	3·00	31·1	12·3	4·31	Skegness.....	VII.
Mean ..	9·1	2·72	30·2	11·7	3·67	.. ..	...
1884 .	11·7	2·33	20·0	13·8	2·66	Diss(Thelveton)	IV.
Diff. ...	+2·6	— ·39	—10·2	+2·1	—1·01	... ..	...

TABLE V.—*Comparison of the Mean of all the Maximum Falls in* 1884 *with similar data for previous years.*

Years.	Number of Returns.	Mean Percentage.	Mean Amount.	Mean Total Fall in year.	1867 being assumed =100.	Total Fall being assumed =34in. Mean Max. =
			in.	in.		
1865.....	481	5·1	1·70	33	106	5·0 per cent
1866.....	590	3·7	1·48	40	129	4·4 ,,
1867.....	584	4·6	1·44	31	100	4·2 ,,
1868.....	676	4·3	1·43	33	106	4·2 ,,
1869.....	637	4·2	1·42	34	110	4·2 ,,
1870.....	687	4·9	1·30	27	87	3·8 ,,
1871.....	752	4·9	1·49	30	97	4·4 ,,
1872.....	743	3·4	1·59	47	151	4·7 ,,
1873.....	809	4·6	1·35	29	94	4·0 ,,
1874.....	1010	4·4	1·41	32	103	4·1 ,,
1875.....	1081	5·0	1·83	37	119	5·4 ,,
1876.....	1112	3·9	1·49	38	123	4·4 ,,
1877.....	1180	3·8	1·56	41	132	4·6 ,,
1878.....	1186	4·3	1·49	35	113	4·4 ,,
1879.....	978	4·2	1·52	36	116	4·5 ,,
1880.....	1117	4·8	1·72	36	116	5·1 ,,
1881.....	1194	4·1	1·45	35	113	4·3 ,,
1882.....	1463	3·6	1·42	39	126	4·2 ,,
1883.....	1505	4·0	1·41	35	113	4·1 ,,
Mean ...	936	4·3	1·50	35	113	4·4 ,,
1884.....	1691	4·8	1·32	28	90	3·9 ,,
Diff.....	+755	+ ·5	— ·18	— 7	— 23	— ·5 ,,

MONTHLY RAINFALL OF 1884.

I have latterly been endeavouring to answer the question "*What form of Diagram best represents Monthly Rainfall?*" as has been shown by the article so entitled in the early part of this volume. The result is that on the present occasion details of monthly fall are given in unusual abundance—because I am too well aware of the importance of continuity to suppress the old form of table until it is quite certain that the new is better, and may advantageously replace the old.

We will give the post of honour to the old forms.

Notes on the months by the observers themselves. These occupy 42 pages, viz. pages [38] to [79] and contain much interesting matter which will well repay perusal.

Tables giving the fall in each month and in the year at 233 *stations.* These tables occupy pages [151] to [157] and contain the amounts at stations as widely and equably distributed over the British Isles as is practicable. From a purely scientific point of view it is necessary to have equally full reports for (say) Caithnessshire as for (say) Surrey. Careful examination of many publications will reveal wide differences in the proportion of information given, but in these monthly tables it will be found that the proportion of one station for each area of 22 miles square is approached as nearly as possible; subject however to the quality of the records, and as far as possible to keeping on the same stations year after year.

Maps.—These, which are inserted between pages [150] and [151] are similar to those given in previous years, and are based upon the following data:—A map was prepared showing the stations of which the records date back to 1870 and are still being continued; 48 were then chosen as widely distributed as possible; for each of them the monthly mean was determined for each month, from the observations made during the decade, 1870–79. Then a table was constructed, showing for each station whether the fall in each month of 1884 was within one inch of the average, or more than

an inch above or below it. Upon the map for each month were then placed marks over the site of each station, indicative of the relation of the fall in that month to the average. The symbols adopted were :—

A round dot when within an inch of the average.
A + when more than an inch above it.
And a — when more than an inch below it.

The New Tables.—These, which form pages [158] to [161] are the basis of the new map to which we must presently refer. The data are given for only 23 stations because it was impracticable to give more upon the map without overcrowding it. The tables are so plain and simple that it seems waste of space to write any explanation except perhaps upon one matter. The fourth column for each station; per centage in each month of 1884, is the per centage which each month in 1884 was of the average yearly fall 1870-79 ; this is advantageous in two ways—(1) It renders it obvious at a glance whether the rainfall of any month was above or below the average for that month ; in the former case the per centage in the column headed "1884," will be larger than that in the column headed "Average," and in the latter case it will be smaller. (2) The total of the monthly per centages in 1884 will show how much the yearly total was above or below the average, *e.g.* at Camden Square the total of the per centages is 75, whence we at once see that at that station the fall in 1884 was 25 per cent. below the average.

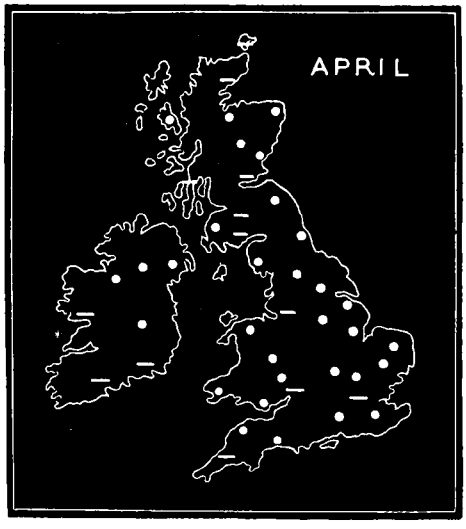
The New Map.—This (*see Frontispiece*) is a new departure in rainfall work, and the outcome of the enquiry already mentioned. I am not going to pronounce it a perfect success. I am not sure that in steering clear of the Scylla of representing the rainfall of such places as Boston and Seathwaite on the same scale, I have not wrecked the ship in the Charybdis of uniformity. When once the mind thoroughly grasps what the map shows, it is extremely instructive, but whether it ought to take a permanent position in these pages is yet to be ascertained. Now for a few words of explanation. The ground work is of course a map of the British Isles. The data given are those worked up in the tables just mentioned, those in *the last two columns* for each station being alone represented. Each separate diagram may be regarded as built up northward from the place of observation, which forms the base line. Each vertical column represents one month, beginning of course with January. The length of each column shows how much per cent. of the average yearly rain, fell in each

month of 1884—*e.g.* at Cork the first two months will be seen to be represented by long columns, and reference to page [161] will show that in January 14 per cent. and in February 20 per cent. fell. The flexuous line shows, on the same scale, the average per centage which falls in each month, and thus by noticing whether the solid column or the flexuous line is the higher, one sees at once whether the fall for that month in 1884 was above or below the average.

Incidentally these diagrams shew other features of much importance. These flexuous lines for example give (to the best of my knowledge for the first time) a graphic representation of the average monthly per centage of rainfall in all parts of the British Isles—a subject vigorously attacked in these pages many years ago by Mr. Gaster, but which has not yet received the attention it deserves.

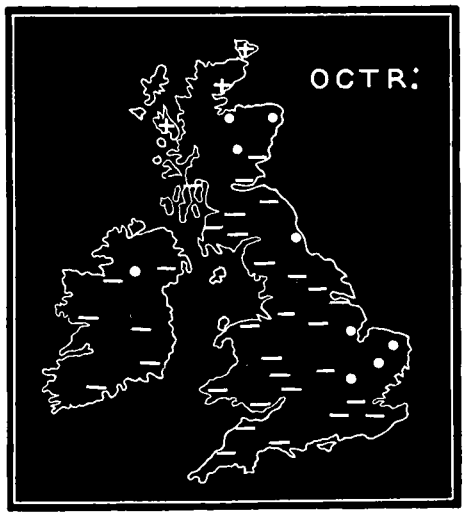
Summary.—Finally on pages [162] and [163] we give a brief account of the principal features of the monthly distribution of rain in 1884.

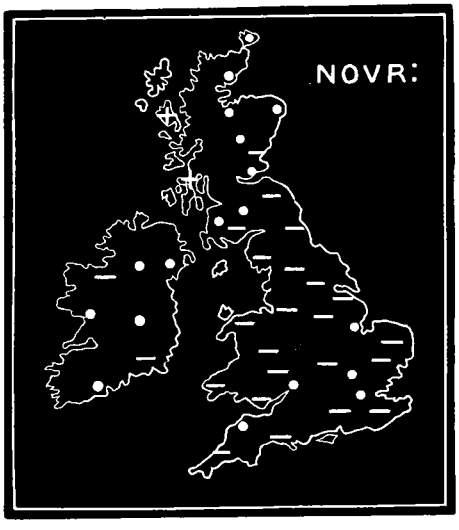
MONTHLY MAPS OF RAINFALL IN 1884.



For explanation see page [148].

MONTHLY MAPS OF RAINFALL IN 1884.





For explanation see page [148].

MONTHLY RAINFALL AT 233 STATIONS IN THE BRITISH ISLES DURING 1884.

ENGLAND.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
I.	Middlesex	London (Camden Sq.)	2·30	1·40	1·41	1·02	·78	2·84	2·46	·89	1·77	·99	1·92	2·57	20·35
,,	,,	Uxbridge (Harefield)	2·39	1·59	1·65	1·40	·75	1·91	2·38	1·23	1·81	1·12	1·55	3·95	21·73
II.	Surrey	Guildford (Guildown)	2·26	1·46	1·71	1·47	·48	1·60	1·89	1·58	2·48	1·00	1·20	2·23	19·36
,,	Kent	Tenterden	2·69	1·74	1·56	1·46	·35	1·12	2·48	·98	4·97	1·71	1·46	3·70	24·22
,,	,,	Hythe	2·22	2·07	1·48	1·46	·33	·99	2·43	·69	2·79	2·94	1·51	4·08	22·99
,,	,,	Sevenoaks (River Hill)	3·01	1·75	1·71	1·34	·50	1·25	1·83	1·35	4·12	1·35	·99	3·06	22·26
,,	,,	Ospringe (Lorenden)	2·30	1·68	1·47	·97	·86	1·94	1·37	·73	3·96	1·77	1·94	2·98	21·97
,,	Sussex	Worthing	3·05	1·23	1·58	1·29	·50	1·62	2·31	1·33	3·74	1·72	1·07	4·07	23·51
,,	,,	Maresfield (Forest Lodge)	3·35	1·81	2·10	1·32	·52	2·21	2·51	1·02	4·53	1·35	1·37	4·07	26·16
,,	Hants	I. of Wight (St. Lawrence)	3·45	2·29	1·84	1·16	1·15	2·00	2·09	1·12	3·25	1·32	·50	4·84	25·01
,,	,,	Droxford	4·13	2·44	3·04	1·41	1·14	1·64	3·59	1·48	2·69	·83	1·61	4·00	28·00
,,	,,	Basingstoke (Sherborne)	4·11	2·37	2·07	1·92	·83	2·48	2·47	1·76	1·76	·76	1·82	3·11	25·46
,,	Berks	Newbury (Welford)	3·16	2·00	1·94	2·17	1·27	3·16	2·12	1·08	1·63	1·23	1·38	2·54	23·68
III.	Herts	Hertford (Bayfordbury)	2·41	1·04	1·57	·92	·51	2·20	2·82	·86	1·26	1·03	1·93	2·04	18·59
,,	,,	Royston	1·75	·56	·94	1·00	·44	1·27	2·08	2·11	1·59	1·49	1·45	2·00	16·68
,,	Bucks	High Wycombe	2·38	1·16	1·38	1·38	·56	2·16	2·44	1·12	1·59	1·00	2·00	3·06	20·23
,,	,,	Buckingham (Adstock)	2·37	1·08	1·10	1·21	·70	1·30	2·43	1·40	1·30	·86	1·29	2·84	17·88
,,	Oxford	Oxford (Magdalen Coll.)	2·30	1·32	1·41	1·69	·80	2·05	2·26	1·52	1·36	·97	1·74	2·07	19·49
,,	Northampton	Wellingborough(Swanspool)	2·19	·61	1·15	1·58	1·12	·88	3·56	1·90	1·37	1·22	1 77	1·86	19·21
,,	Bedford	Bedford	1·70	·65	·91	1·26	·70	1·81	3·17	1·25	1·50	1·17	1·15	1·77	17·04
,,	Cambridge	Ely (Stretham)	1·28	·62	·69	1·17	·97	1·18	2·43	1·20	1·97	1·13	·86	1·97	15·47
,,	,,	Wisbech	1·72	·54	·95	1·22	·87	2·06	4·04	1·91	2·30	1·28	1·90	1·77	20·56
IV.	Essex	Waltham Abbey	2·12	1·13	1·52	·87	·51	1·55	1·99	1·07	1·38	1·06	1·63	2·68	17·51
,,	,,	Chelmsford	2·00	1·23	1·58	·83	·60	·94	2·47	·57	2·14	1·57	·96	2·69	17·58
,,	,,	Braintree (Bocking Place)	2·16	1·16	1·25	·99	·32	·96	1·70	·87	2·69	2·20	1·68	2·14	18·12
,,	Suffolk	Haverhill (Great Thurlow)	1·63	·44	·55	1·02	·56	1·93	1·96	1·28	2·14	2·06	·91	1·96	16·44
,,	,,	Ipswich	1·69	·85	1·35	1·12	·48	·95	1·94	1·02	3·97	2·23	·93	2·05	18·58
,,	,,	Stradbroke	1·65	1·00	1·08	1·65	·54	1·20	2·15	·91	3·83	2·75	1·22	2·15	20·13
,,	Norfolk	Geldeston [Beccles]	1·40	·68	1·23	1·47	1·36	·79	1·75	1·07	4·00	3·63	1·77	2·16	21·31
,,	,,	Swaffham	1·92	·91	1·35	1·16	·76	·99	2·00	2·37	2·13	2·69	2·37	2·19	20·84
,,	,,	Holt	1·98	·53	1·09	1·33	1·06	·64	1·84	2·77	2·58	3·27	2·42	2·65	22·16

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
V.	Wilts	Salisbury	3·54	2·35	2·49	1·73	·89	2·86	2·33	1·38	1·32	·72	1·92	2·81	24·34
,,	,,	Trowbridge(Steeple Ashton)	2·96	1·74	2·44	1·78	1·79	4·11	2·87	1·21	1·38	·92	1·35	2·53	25·08
,,	,,	Pewsey	2·73	1·94	2·37	1·54	1·19	3·70	2·57	1·29	1·78	·75	1·89	2·68	24·43
,,	Dorset	Weymouth (Osmington)	3·90	2·92	2·66	2·53	·76	3·19	2·29	2·31	1·55	1·11	2·29	4·63	30·14
,,	,,	Wimborne (Chalbury)	3·51	2·61	2·93	1·72	1·15	4·51	2·15	1·35	1·62	1·27	1·68	4·24	28·74
,,	,,	Shaftesbury	3·77	2·62	2·50	2·64	2·11	4·54	2·95	1·92	1·95	·98	2·26	4·08	32·32
,,	Devon	Dartmouth Strete	4·92	4·14	3·14	1·30	1·39	1·07	2·48	1·38	2·21	1·28	2·06	5·46	30·83
,,	,,	Dartmoor (Lee Moor)	7·10	6·65	6·50	2·57	2·36	1·56	6·49	2·58	4·39	1·76	4·20	7·37	53·53
,,	,,	Bovey Tracey	5·97	6·79	4·57	2·40	1·67	1·41	3·47	1·02	2·11	1·25	2·12	4·58	37·36
,,	,,	Cullompton (Bradninch)	3·58	3·94	3·40	1·95	1·06	2·76	3·10	1·84	1·77	·81	2·16	4·03	30·40
,,	,,	S. Molton (Rose Ash)	3·89	3·45	2·08	2·17	2·03	1·67	3·31	4·83	2·20	2·22	2·76	5·68	36·29
,,	Cornwall	Penzance	4·34	4·90	4·63	1·79	1·25	1·45	4·23	1·88	3·89	2·09	3·11	4·16	37·72
,,	,,	St. Agnes	3·39	4·44	4·26	2·58	1·11	1·62	4·10	2·19	2·34	2·35	2·93	4·21	35·52
,,	,,	Stratton (Week St. Mary)	4·68	4·43	3·75	2·32	1·32	1·43	2·86	2·46	2·59	2·94	2·86	4·89	36·53
,,	Somerset	Ilminster	3·77	3·90	3·54	2·14	1·09	2·48	2·84	1·21	2·02	·62	1·87	2·58	28·06
,,	,,	Glastonbury (Street)	2·96	2·15	2·57	1·66	1·16	3·71	3·81	1·85	3·00	·81	1·96	3·54	29·18
,,	,,	Exford Rectory	6·95	3·97	3·62	1·67	2·90	2·43	2·81	3·52	2·96	2·64	3·10	9·19	45·76
VI.	Gloucester	Clifton	4·82	1·85	2·69	1·12	2·50	3·87	3·66	2·74	2·00	1·17	1·68	5·29	33·39
,,	,,	Stroud (Upfield)	3·18	1·71	2·67	1·39	·58	2·26	3·37	2·05	1·51	·93	2·00	2·69	24·34
,,	,,	Fairford (Hatherop Rec.)	3·38	1·65	2·10	1·63	·72	3·54	3·31	1·36	1·31	·92	1·87	3·27	25·06
,,	Hereford	Ross (The Graig)	3·28	2·66	2·62	1·43	·57	4·05	3·51	2·02	1·24	1·05	1·90	2·59	26·92
,,	Salop	Ch. Stretton (Woolstaston)	3·20	3·29	3·15	1·84	1·34	3·02	3·30	2·35	1·39	1·60	1·51	3·65	29·64
,,	,,	Broseley (Benthall Hall)	2·23	2·22	2·07	2·14	1·16	2·30	3·21	·86	3·42	1·75	1·42	2·39	25·17
,,	,,	Oswestry	4·79	3·84	3·28	2·14	1·45	1·56	3·49	1·43	1·73	1·01	2·46	3·54	30·72
,,	Stafford	Lichfield Museum	2·92	1·75	2·25	1·76	1·38	1·87	2·78	2·18	1·81	1·56	1·35	2·64	24·25
,,	,,	Burton (Shobnall)	2·16	1·35	1·34	1·49	1·22	1·63	2·72	1·50	2·81	1·23	·85	2·57	20·87
,,	,,	Etruria	2·60	2·07	2·46	1·63	1·82	1·92	3·54	·87	3·03	1·78	1·65	2·28	25·65
,,	Worcester	Blockley	2·44	1·66	2·51	2·31	1·08	3·95	3·56	2·08	1·42	1·03	1·99	2·24	26·27
,,	,,	Malvern	2·63	2·28	2·86	1·38	·55	3·60	2·76	2·33	·99	1·22	2·13	2·18	24·91
,,	,,	Tenbury (Orleton)	3·28	2·29	2·86	1·59	·71	2·82	3·21	1·99	2·07	1·05	1·85	2·24	25·96
,,	,,	Stourbridge (Longlands)	2·61	1·72	2·81	1·67	1·05	2·21	2·99	2·10	2·12	1·40	1·46	2·36	24·50
,,	Warwick	Leamington (Blackdown)	2·43	1·09	1·70	2·31	·97	1·54	3·83	2·33	·93	1·28	1·86	2·25	22·52
,,	,,	Willey Rectory	2·16	1·01	1·86	2·00	1·42	2·07	5·66	2·88	1·29	1·80	1·56	2·52	26·23
VII.	Leicester	Loughborough	2·58	1·19	2·20	2·23	1·09	1·24	3·53	1·99	1·35	1·39	1·15	3·01	22·95
,,	,,	Harston [Grantham]	1·97	1·12	1·33	1·50	·97	·63	4·77	1·54	·81	1·25	1·59	1·80	19·28

ENGLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
VII.	Rutland	Market Overton	2·45	1·17	1·17	1·53	1·53	·87	4·12	1·60	1·19	1·70	1·79	2·11	21·23
,,	Lincoln	Horncastle	2·25	1·42	1·57	1·32	1·11	·36	2·72	2·60	1·29	1·56	1·22	2·78	20·20
,,	,,	Brigg (Appleby Vic.)	2·71	1·42	1·55	1·31	·82	·48	3·98	1·83	1·19	·82	1·39	2·35	19·85
,,	Notts	Ollerton(ThoresbyGardens)	3·33	2·16	2·04	2·07	·52	·77	4·90	1·67	1·00	·96	·88	1·79	22·09
,,	Derby	Buxton	7·35	3·19	3·89	1·99	3·01	2·08	5·09	1·72	3·80	3·93	2·74	6·17	44·96
VIII.	Cheshire	Congleton(BuglawtonVic.)	2·52	1·17	2·21	1·32	1·41	2·11	3·11	1·87	2·62	1·83	2·00	2·77	24·94
,,	Lancashire	Manchester (Withington)	4·16	1·84	2·12	·75	1·47	·76	3·85	1·82	2·90	2·21	1·74	3·49	27·11
,,	,,	Ormskirk (Rufford)	4·33	2·56	2·62	1·22	1·50	1·79	3·35	1·92	2·33	2·09	1·47	3·39	28·57
,,	,,	Burnley (Rosegrove)	5·85	3·77	3·47	1·42	1·35	·74	5·09	2·64	2·61	2·67	1·71	5·56	36·88
,,	,,	Garstang (Vale House)	4·92	2·93	2·86	1·08	2·16	·74	6·17	2·23	3·83	2·97	1·98	4·24	36·11
,,	,,	Grange (Nutwood)	7·04	2·54	3·11	1·06	2·98	1·10	6·44	1·60	4·40	3·88	1·64	4·82	40·61
IX.	York, W.R.	Rotherham	3·72	1·54	1·49	2·01	·93	1·22	2·67	1·53	·93	1·10	·86	1·91	19·91
,,	,,	Huddersfield (Dalton)	5·75	1·57	1·68	1·73	1·69	·90	2·60	1·33	2·19	1·51	1·32	3·64	25·91
,,	,,	South Milford	3·09	2·28	1·53	1·63	·73	·86	2·41	1·01	1·07	1·04	·91	1·43	17·99
,,	,,	Malham Tarn	9·39	4·47	4·37	2·51	4·16	·57	7·35	2·70	3·46	4·81	3·53	8·35	55·67
,,	,,	Ripon (Mickley)	4·71	2·09	2·61	2·25	·91	1·04	3·75	1·51	1·39	1·75	1·60	4·38	27·99
,,	York, E.R.	Patrington	2·41	1·58	1·34	1·01	·58	·64	1·87	1·40	1·21	1·50	1·81	2·04	17·39
,,	,,	Brantinghamthorpe	3·26	2·41	2·11	1·78	·60	·56	2·64	·56	2·25	1·00	1·05	2·69	20·91
,,	,,	Pocklington (Warter)	2·77	1·68	2·10	1·86	1·35	·65	2·65	1·19	1·39	1·37	1·27	2·60	20·88
,,	,,	Ganton	3·07	2·37	2·63	2·44	1·14	·32	2·77	·86	1·12	1·20	1·97	2·36	22·25
,,	York, N.R.	Malton	3·14	2·15	2·22	2·01	·66	·48	2·77	1·46	·83	1·04	1·31	2·68	20·75
,,	,,	Northallerton	1·40	3·19	2·41	1·62	·41	1·44	6·06	1·01	·85	1·63	1·41	2·60	24·03
,,	,,	Lockwood Beck	3·66	1·09	2·50	3·07	·51	1·23	2·37	·81	1·01	2·13	2·93	2·59	23·90
X.	Durham	Darlington (South End)	3·53	·98	2·49	1·89	·44	·65	3·85	1·02	1·11	1·31	1·59	1·63	20·49
,,	,,	Hartlepool(HurworthBurn)	2·67	·92	1·78	2·05	·87	·76	2·82	1·26	1·18	1·62	1·47	1·56	18·96
,,	,,	Wolsingham	5·50	2·13	2·63	2·37	·80	·86	5·07	·87	1·74	2·17	2·29	3·45	29·88
,,	Northumberland	Haltwhistle(UnthankHall)	6·98	2·15	2·06	1·52	3·43	·60	9·29	1·28	2·44	1·87	1·72	5·08	38·42
,,	,,	Stamfordham	3·40	1·61	1·93	2·00	1·74	·55	2·93	·83	2·27	1·66	1·18	3·19	23·29
,,	,,	Alwinton (Biddleston)	4·13	2·51	2·10	1·86	2·56	·84	4·21	1·12	2·13	3·57	2·81	2·46	30·30
,,	,,	Howick Hall	3·30	1·22	2·63	1·80	1·13	·84	3·33	·78	1·99	1·66	1·91	2·12	22·71
,,	Cumberland	Borrowdale (Seathwaite)	22·51	14·96	13·98	4·15	17·30	1·47	10·01	3·36	11·97	10·80	6·70	19·22	136·43
,,	,,	Scaleby Hall	5·03	1·71	2·23	1·42	2·02	·54	6·69	1·56	3·06	1·69	1·25	3·23	30·43
,,	Westmoreland	Kendal	8·07	3·51	3·93	1·23	4·00	·87	4·01	1·17	4·53	3·36	2·40	7·39	44·47
,,	,,	Kirkby Stephen	6·39	4·47	3·38	1·48	2·77	·81	4·44	1·26	3·39	2·10	2·09	6·12	38·70
,,	,,	Brougham Hall	5·90	4·41	3·31	1·62	2·13	1·01	5·42	1·44	3·69	2·17	2·22	3·76	37·08

MONMOUTH, WALES AND THE ISLANDS.

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XI.	Monmouth.....	Newport (Gold Tops)	6·36	4·33	3·55	1·32	2·04	2·33	4·62	2·65	3·32	1·32	2·31	6·33	40·48
,,	,, ...	Abergavenny.....	4·64	5·64	5·06	1·95	·95	2·58	3·42	·98	2·65	·99	2·31	4·06	35·23
,,	Glamorgan.....	Cardiff (Pentyrch)	6·22	4·59	3·62	1·49	3·84	2·44	4·50	3·89	2·54	·86	2·17	6·55	42·71
,,	,, ...	Ystalyfera (Tan-y-rallt) ...	10·73	6·36	6·60	2·99	3·29	3·44	5·83	3·81	5·88	3·39	3·49	11·65	67·46
,,	Carmarthen	Carmarthen Asylum	6·90	5·79	6·44	2·05	2·38	1·57	5·55	3·22	4·24	3·96	3·17	6·48	51·75
,,	,, ...	Llandovery	8·38	5·26	3·83	2·32	2·82	2·99	4·22	3·40	4·99	3·36	2·92	8·45	52·94
,,	Pembroke	Stackpole Court	4·08	5·88	4·35	2·41	1·94	·64	4·53	1·80	4·49	2·01	2·90	5·27	40·30
,,	,, ...	Fishguard (Castle Hill) ...	6·07	6·09	5·72	1·63	1·82	·77	4·71	1·11	3·03	2·76	3·90	5·59	43·20
,,	Cardigan	Aberystwith (Cwmsymlog)	6·88	4·25	3·31	1·54	3·45	2·07	5·04	3·36	4·99	6·07	3·72	7·15	51·83
,,	Brecknock.....	Brecknock	5·63	7·96	1·74	1·73	1·90	2·43	2·01	1·80	3·10	1·70	2·47	6·27	38·74
,,	Radnor	Rhayader (Nantgwillt) ...	9·41	7·26	5·51	2·44	3·12	2·10	4·79	3·32	4·48	3·93	3·27	10·31	59·94
,,	,, ...	Old Radnor (WaltonCourt)	5·01	5·21	2·49	1·20	1·19	2·06	2·05	3·08	1·58	2·63	2·05	4·76	33·31
,,	Montgomery.....	Carno (Tybrith)	8·20	5·45	3·39	1·49	2·74	1·40	3·75	2·10	3·05	3·42	3·15	8·25	46·39
,,	Flint	St Asaph (Nantllys)	3·24	2·68	2·18	1·73	·88	·65	5·09	1·15	2·67	1·96	2·63	1·56	26·42
,,	Denbigh.....	Rosset (Trevalyn Hall) ...	2·72	2·82	2·63	1·12	·85	2·44	3·52	·89	1·54	·92	2·57	2·02	24·04
,,	Merioneth	Dolgelly.....	6·04	9·78	6·55	·82	2·78	1·74	5·11	1·91	4·93	4·78	4·40	7·53	56·37
,,	,, ...	Bala	8·61	5·42	2·98	1·22	3·00	1·92	3·93	1·22	3·09	3·61	4·11	8·00	47·11
,,	Carnarvon.....	Port Madoc	6·66	5·58	3·64	1·32	3·62	1·43	5·22	1·75	6·87	3·91	4·26	6·06	50·32
,,	Anglesey	Llanerchymedd (Llwydiarth	4·22	4·86	3·88	1·26	2·20	·98	4·13	1·15	2·19	2·17	3·62	4·25	34·91
,,	Isle of Man	Douglas .....Esgob)	6·85	4·79	3·21	1·39	1·26	·69	4·36	1·47	3·13	2·01	4·54	5·26	38·96
,,	Jersey.....	St. Aubin's School	3·30	2·48	1·88	1·70	·91	4·50	1·82	1·30	3·28	3·04	2·64	5·85	32·70
,,	Guernsey	Villa Carey	3·69	2·69	2·24	2·12	·80	2·72	2·87	1·07	3·02	1·96	1·76	6·43	31·37
		SCOTLAND.													
XII.	Wigton	Garliestown (Galloway House)	6·10	5·07	3·38	1·81	3·66	·59	5·44	1·82	3·01	3·55	2 63	5·24	42·30
,,	,, ...	Corsewall	7·03	5·06	3·66	1·69	2·24	·57	2·89	1·86	3·15	4·04	3·47	4·53	40·19
,,	Kirkcudbright ...	Dalbeattie(Colvend Manse)	5·15	5·50	3·84	1·62	3·05	·47	3·66	1·76	3·44	2·81	2·72	4·67	38·69
,,	Dumfries	Moffat (Ericstane)	10·70	9·25	6·60	1·50	5·00	1·00	6·95	1·50	3·90	4·20	3·50	7·60	61·70
,,	Roxburgh	New Castleton (The Flatt).	8·50	5·40	4·10	1·30	4·50	·60	7·10	2·20	4·40	2·10	2·50	5·40	46·10
,,	,, ...	Hawick (Branxholme).....	6·81	4·48	2·91	1·41	2·29	·37	5·78	·90	3·68	1·28	2·08	4·22	36·21
,,	,, ...	Jedburgh	4·02	2·81	2·02	1·09	2·00	·77	4·92	1·26	3·07	·91	1·40	2·66	26·93
XIII.	Peebles	Glenrath	9·88	3·89	2·95	1·75	3·57	1·21	7·59	1·19	2·89	2·11	2·70	4·78	44·51
,,	,, ...	N. Esk Res. [Penicuick]...	4·95	3·55	2·40	1·10	4·15	1·45	5·65	1·40	2·70	3·20	2·30	5·15	38·00
,,	Berwick.....	Marchmont House	4·43	1·81	2·15	1·32	2·08	·78	5·48	1·11	3·01	1·88	2·54	2·14	28·73

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XIII.	Haddington	East Linton	2·35	·72	1·13	1·37	1·96	·91	3·06	1·75	2·36	·97	1·39	1·40	19·45
,,	Edinburgh	Charlotte Square	3·78	1·07	1·60	·80	2·70	·57	4·41	2·30	2·23	1·10	1·30	2·88	24·66
,,	Linlithgow	Bathgate	4·60	2·81	1·61	·60	2·73	·63	4·36	1·58	2·37	2·30	2·28	4·36	30·23
XIV.	Lanark	Douglas (Newmains)	8·72	7·17	3·18	·88	4·05	·69	4·95	1·27	3·18	3·18	2·69	7·29	47·25
,,	,,	Cambuslang	6·39	4·05	2·08	1·05	2·93	·85	5·78	2·07	2·84	2·67	2·93	5·47	39·11
,,	Ayr	Girvan (Pinmore)	9·36	7·60	4·81	1·37	5·38	·83	4·62	3·05	5·35	5·44	4·30	5·80	57·91
,,	,,	Ayr (Cassillis)	7·44	3·93	2·23	1·19	3·80	·98	4·65	2·26	4·46	4·37	3·53	5·77	44·61
,,	,,	Kilmarnock (North Craig)	6·99	3·92	2·07	1·14	3·39	1·25	4·51	2·47	2·83	4·10	3·30	5·00	40·97
XV.	Dumbarton	Arrochar	8·25	14·10	7·05	3·32	5·90	2·73	7·50	6·37	6·60	11·25	14·75	13·15	100·97
,,	Stirling	Killearn	9·42	8·85	4·63	1·75	5·23	2·04	5·69	5·14	4·01	6·23	5·99	9·58	68·56
,,	Bute	Arran Pladda	8·64	4·02	3·13	·76	4·04	·49	4·55	3·86	4·71	4·35	4·77	6·32	49·64
,,	Argyll	Lochgilphead (Kilmory)	10·40	5·77	4·97	1·30	5·07	1·35	5·26	6·47	5·87	7·18	6·92	9·14	69·70
,,	,,	Dalmally	8·52	9·37	3·10	2·16	5·52	2·95	7·01	4·83	6·50	10·14	7·85	12·72	80·67
,,	,,	Appin (Airds)	8·14	4·42	1·56	·96	4·48	1·90	6·62	5·26	4·63	7·40	7·16	7·10	59·63
,,	,,	Strontian (Laudale)	11·53	11·77	8·88	2·92	5·29	2·07	6·39	6·88	7·05	11·35	11·90	12·97	99·00
,,	,,	Cantire (Devaar)	7·70	3·39	2·46	1·33	3·20	·46	2·90	3·65	4·30	3·70	7·91	7·54	48·54
,,	,,	Islay (Eallabus)	6·53	4·12	5·94	1·89	3·77	·80	2·97	4·24	4·51	5·88	6·37	7·09	54·11
,,	,,	Jura (Fladda)	7·75	5·22	5·80	·52	3·29	·90	4·57	5·05	5·18	8·10	7·76	9·20	63·34
,,	,,	Tyree (Hynish)	8·97	4·74	7·22	1·27	4·17	·84	4·00	5·81	4·88	6·53	6·91	5·37	60·71
XVI.	Fife	Dunfermline (Keavil)	4·14	2·32	1·96	·74	2·26	·55	4·80	1·59	1·51	1·43	1·79	3·58	26·67
,,	,,	Kilconquhar (Balcarres)	3·75	1·80	2·60	1·93	3·25	·40	4·20	3·10	2·10	2·50	2·90	3·25	31·78
,,	,,	Strathmiglo (Loden Urquht)	4 82	2·41	2·88	1·14	2·67	·31	6·09	1·42	2·82	2·40	2·56	3·96	33·48
,,	Perth	Stronvar	12·73	12·20	7·94	2·30	6·85	1·69	6·82	5·66	6·41	9·33	10·08	12·29	94·30
,,	,,	Dunkeld (Inver Braan)	6·51	6·47	4·90	1·20	2·89	·39	5·64	2·23	2·66	3·17	2·96	4·51	43·53
,,	,,	Dalnaspidal H.R.S.	9·45	5·36	4·14	2·44	4·39	1·17	5·53	5·10	5·48	6·96	7·59	9·32	66·93
,,	Forfar	Dundee (Broughty Ferry)	3·12	1·91	2·66	1·31	1·97	·31	6·15	2·10	2·20	1·42	1·72	2·29	27·16
,,	,,	Kirriemuir (Lintrathen)	4·06	3·54	3·92	1·70	2·31	·86	5·27	2·88	2·50	2·32	3·66	3·26	36·28
XVII.	Kincardine	The Burn	4·40	2·60	4·30	1·90	1·60	·40	5·30	1·60	2·20	3·20	2·30	2·70	32·50
,,	Aberdeen	Coldstone Manse	3·29	1·93	3·18	1·44	1·57	·82	3·69	1·55	1·39	3·58	3·21	1·07	26·72
,,	,,	Inverury Manse	3·69	1·38	4·00	1·50	1·49	1·06	2·25	1·69	1·50	3·82	3·00	1·65	27·03
,,	,,	Old Deer	3·41	1·41	4·72	1·38	1·17	1·29	2·44	2·53	1·51	3·97	4·20	1·87	29·90
,,	Moray	Grantown	3·81	1·40	2·79	1·03	2·11	1·44	3·51	2·32	1·12	4·42	3·65	1·91	29·51
,,	,,	Gordon Castle	3·33	·77	2·62	·61	1·26	1·85	1·62	2·45	·37	3·05	3·36	1·34	22·63
,,	,,	Elgin	2·70	·53	1·62	·57	1·10	1·29	1·90	2·09	·45	2·03	3·61	1·17	19·06
,,	Nairn	Nairn (Acharéidh)	3·45	·78	·79	·56	1·55	·98	2·05	1·33	·48	2·00	2·62	1·99	18·58

SCOTLAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XVIII.	Ross	Loch Alsh (Inverinate)	13·24	7·31	3·61	6·11	6·06	2·87	5·43	5·71	6·15	9·93	8·69	5·46	80·57
,,	,,	Strome Ferry H.R.S.	10·17	6·01	4·98	2·46	4·34	3·13	5·57	6·07	5·29	8·88	9·89	6·39	73·18
,,	,,	Strathconan	10·33	5·21	3·96	1·27	4·19	1·99	3·82	2·81	3·44	6·78	7·71	9·00	60·51
,,	,,	Invergordon Castle	4·88	2·29	1·21	·50	2·57	·92	2·52	2·30	·78	3·19	3·13	2·76	27·05
,,	Inverness	Fort William	14·57	9·64	6·02	·85	5·90	2·51	6·34	6·09	6·12	13·77	13·55	11·58	96·94
,,	,,	Skye (Sligachan)	16·37	13·66	13·04	4·27	10·35	4·63	4·74	11·87	15·27	17·45	21·51	18·81	151·97
,,	,,	Invergarry	14·32	7·51	4·58	1·83	4·64	1·47	3·84	3·45	5·79	8·13	9·51	10·14	75·21
,,	,,	Aviemore H.R.S.	4 95	2·17	2·46	1·00	2·22	·95	3·89	3·85	1·50	4·73	3·86	4·17	35·73
,,	,,	Glen Strathfarrer	4·85	4·69	5·36	5·12	4·90	2·91	3·61	2·14	3·17	4·53	7·05	4·70	53·03
XIX.	Sutherland	Invershin	4·76	1·95	·91	2·09	2·75	·98	3·75	3·82	3·49	4·33	1·97	2·47	33·27
,,	,,	Scourie	4·80	1·40	2·00	·55	3·10	2·00	2·80	2·50	2 20	5·70	5·80	4·40	37·25
,,	,,	Forsinard H.R.S.	4·53	1·45	2·67	·63	2·86	1·38	1·91	3·54	1·49	4·21	5·29	3·19	33·15
,,	Caithness	Wick H.R.S.	4·23	1·18	2·98	·38	2·28	1·98	1·55	3·84	·94	4·33	4·06	2·36	30·11
,,	Shetland	Sumburgh Head	5·27	2·80	3·80	1·65	3·29	1·48	1·91	2·04	4·70	4·59	4·50	6·71	42·74
							IRELAND.								
XX.	Cork	Dunmanway (Coolkelure)	10·59	11·38	9·57	2·44	4·63	·95	6·01	1·96	5·88	4·06	6·43	9·64	73·54
,,	,,	Cork (Blackrock)	6·85	9·44	5·13	1·93	1·70	·70	2·64	·73	2·07	1·10	3·69	3·64	39·62
,,	,,	Fermoy (Glenville)	6·26	7·99	5·21	1·50	2·48	·95	4·26	1·37	2·47	2·74	3·28	4·97	43·48
,,	Kerry	Dromore Castle	9·15	8·31	7·10	2·46	4·63	1·56	6·28	2·89	2·79	5·10	2·93	7·58	60·78
,,	,,	Dingle	5·16	7·09	6·39	1·42	3·24	2·24	4·53	4·11	4·03	5·11	4·37	6·45	54·14
,,	,,	Tralee (Castlemorris)	4·43	5·30	5·16	1·89	2·62	1·26	3·58	1·42	2·76	2·99	4·91	4·09	40·41
,,	Waterford	Waterford Gas Works	5·16	7·79	4·20	1·66	1·43	·67	2·42	·90	1·78	1·45	3·00	2·61	33·07
,,	Tipperary	Tipperary, Henry Street	4·95	5·31	3·23	1·42	2·08	·55	4·36	1·07	2·04	2·89	2·96	4·65	35·51
,,	,,	Nenagh (Castle Lough)	5·78	4·58	4·05	1·53	2·43	·57	2·90	1·21	2·92	3·10	4·31	6·10	39·48
,,	,,	Ballingarry (Hazelfort)	3·71	3·17	2·68	1·48	1·66	·89	3·14	1·46	2·09	2·71	2·57	4·20	29·76
,,	Limerick	Jane Ville	4·38	7·26	4·31	1·81	2·43	1·12	3·90	1·59	1·84	3·62	3·50	5·16	40·92
,,	Clare	Ennis	5·04	3·85	3·78	1·02	2·83	·51	2·79	1·58	2·50	3·30	4·65	5·24	37·09
,,	,,	Miltown Malbay	4·70	4·09	4·33	1·56	4·02	1·37	3·57	2·11	3·94	4·65	3·75	5·48	43·57
XXI.	Wexford	Ballyhyland	5·38	7·87	4·56	1·01	2·61	1·35	3·49	·86	2·75	1·40	2·76	4·51	38·55
,,	,,	Gorey (Courtown)	4·16	6·91	3·55	1·88	2·36	·51	2·08	·42	1·55	·81	2·71	2·59	29·53
,,	Kilkenny	Stoneyford (Inisnag Glebe)	4·40	4·95	4·17	1·50	1·50	·78	2·56	·90	1·50	1·30	2·43	2·96	28·95
,,	,,	Kilkenny (Lavistown)	3·81	4·11	3·24	1·40	1·44	·77	2·80	·77	1·73	1·07	2 06	3·40	26·60
,,	Wicklow	Bray Fassaroe	4·75	9·50	4·72	2·60	1·72	1·18	2·96	·65	1·74	1·20	2·54	3·25	36·81
,,	Carlow	Browne's Hill	4·16	4·42	2·88	1·24	1·52	·84	3·67	·66	2·12	1·78	2·13	3·77	29·19

IRELAND—(*continued.*)

Div.	County.	Station.	Jan.	Feb.	March.	April.	May.	June.	July.	August.	Sept.	Oct.	Nov.	Dec.	Total.
XXI.	Queen's Co.	Abbey Leix (Blandsfort)...	3·81	4·10	2·40	1·91	1·91	·75	3·35	1·45	2·04	2·10	2·64	4·39	30·85
,,	King's Co.	Clonbrin	3·34	2·36	2·32	1·68	2·00	·49	3·01	1·20	1·61	1·59	3·07	3·88	26·55
,,	Dublin	Glasnevin Botanic Gardens	2·33	2·69	1·40	1·56	1·41	1·03	2·38	·98	1·05	·74	1·31	1·58	18·46
,,	Meath	Trim	3·83	3·99	2·14	1·35	1·90	2·12	2·78	·92	2·86	2·25	2·46	4·51	31·11
,,	,, ...	Moynalty (Westland).....	4·54	4·23	2·81	1·64	2·51	1·46	3·65	1·43	3·06	2·15	2·95	4·02	34·45
,,	Westmeath	Mullingar (Belvedere).....	4·54	3·26	2·69	1·32	2·97	1·08	3·39	2·21	2·92	2·15	3·12	4·76	34·41
,,	,, ...	Athlone (Twyford)	7·46	4·49	5·02	1·53	3·95	·85	2·96	1·98	2·27	2·96	4·58	5·72	43·77
,,	Louth	Stephenstown	4·07	3·47	2·07	2·10	1·87	·65	3·48	1·44	2·51	1·47	2·18	3·00	28·31
,,	,, ...	Greenore	3·85	3·46	1·95	1·67	1·81	·36	4·14	1·17	1·64	1·23	2·40	3·24	26·92
,,	Longford	Edgeworthstown	4·44	4·01	3·65	1·10	2·99	1·14	4·58	1·43	2·67	4·05	3·66	4·20	37·92
XXII.	Galway	Spiddle	6·05	4·91	4·75	1·41	4·24	·77	3·37	3·08	3·59	4·75	3·78	5·40	46·10
,,	,, ...	Ballinasloe	5·40	3·66	3·35	1·01	3·22	·63	2·69	2·42	2·31	2·80	3·81	5·44	36·74
,,	,, ...	Tuam	6·67	4·58	4·74	1·73	4·24	·96	3·54	2·37	4·24	5·09	3·81	6·26	48·23
,,	Mayo	Ballinrobe	8·58	5·29	6·87	1·48	3·73	1·10	4·45	3·20	5·62	3·86	5·01	7·07	56·26
,,	,, ...	Westport (Oldhead).....	7·10	6·30	6·40	2·20	3·60	3·10	2·00	4·10	6·50	5·10	6·20	6·20	58·80
,,	,, ...	Crossmolina (Enniscoe) ...	7·85	4·72	5·89	1·28	3·14	1·02	4·44	2·85	6·17	5·01	5·24	6·56	54·17
,,	Sligo	Sligo (Mount Shannon) ...	5·53	3·75	2·17	1·12	3·93	1·18	4·90	3·29	3·37	4·40	5·23	4·28	43·15
,,	Leitrim	Carrick-on-Shannon	4·71	3·75	5·06	·76	2·74	·49	4·24	2·53	2·81	3·57	3·93	4·21	38·80
XXIII.	Cavan	Belturbet (Red Hills)	4·82	2·96	2·82	1·21	2·62	1·31	6·21	1·55	2·67	3·42	2·99	3·67	36·25
,,	Fermanagh	Enniskillen (Lisbellaw) ...	4·76	3·96	2·97	1·22	2·74	·95	4·61	2·62	3·74	3·19	3·18	4·06	38·00
,,	Monaghan	Rockcorry	5·08	2·99	1·77	1·44	2·73	1·49	2·79	1·54	2·60	2·94	2·50	3·67	31·54
,,	Armagh	Armagh	4·45	3·47	2·79	1·96	3·01	·90	3·58	2·33	2·85	3·20	2·42	3·59	34·55
,,	Down	Newcastle (Fairleigh)	7·99	6·56	5·60	2·66	2·76	·81	4·62	2·41	3·49	2·83	6·41	5·28	51·42
,,	,, ...	Newtownards	5·14	3·01	2·12	1·00	2·33	1·25	4·22	2·53	2·13	1·77	2·81	2·73	31·04
,,	Antrim	New Barnsley	6·15	3·38	3·87	1·34	3·52	·90	4·35	3·24	3·43	2·97	3·51	4·71	41·37
,,	,, ...	Ballymena.....	5·72	3·42	4·51	1·23	3·15	·84	3·12	2 87	3·77	3·98	4·59	4·77	41·97
,,	,, ...	Bushmills	5·17	3·16	3·01	1·49	2·45	·81	3·06	3·97	4·53	4·31	4·49	4·79	41·24
,,	Londonderry.....	Newtown Limavady	4·69	2·95	2·31	1·46	2·56	1·22	2·87	3·66	3·54	3·90	3·84	4·18	37·18
,,	Tyrone	Stewartstown (Ardtrea) ...	6·17	3·64	3·64	2·18	3·23	·62	2·34	2·08	3·14	3·04	3·74	3·84	37·66
,,	,, ...	Omagh (Edenfel)	5·70	3·75	2·79	1·38	3·50	1·35	3·46	2·41	3·17	4·52	3·75	4·40	40·18
,,	Donegal.....	Castlefinn (Finn Lodge) ...	5·69	2·97	2·74	1·51	2·56	1·38	3 76	2·71	4·12	3·98	4·32	5·41	41·15
,,	,, ...	Ramelton (Killygarvan) ...	6·68	3·47	2·39	1·59	3·43	1·21	4·55	4·16	4·17	5·33	5·67	5·59	48·24

MONTHLY RAINFALL OF 1884 COMPARED WITH THE MONTHLY MEANS, 1870-9.

ENGLAND.

	(1) I. Middlesex. *Camden Square, N. W.*				(2) II. Hants. *St. Lawrence, I. of W.*				(3) IV. Norfolk. *Norwich.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884.	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.			in.	in.		
Jan. ...	2·35	2·30	9	9	3·67	3·45	12	11	1·81	1·35	7	5
Feb. ...	1·64	1·40	6	5	2·43	2·29	8	7	1·79	·57	6	2
March	1·61	1·41	6	5	1·96	1·84	6	6	1·64	1·37	6	5
April..	2·02	1·02	7	4	2·01	1·16	6	4	1·83	1·78	7	6
May ...	1·92	·78	7	3	1·37	1·15	4	4	1·80	1·01	6	4
June...	2·67	2·84	10	10	1·72	2·00	5	6	2·11	·46	8	2
July...	2·47	2·46	9	9	2·48	2·09	8	7	2·77	2·58	10	9
Aug. ..	2·74	·89	10	3	2·68	1·12	9	4	2·78	1·08	10	4
Sep. ...	2·51	1·77	9	7	2·85	3·25	9	10	3·30	2·98	12	11
Oct. ...	2·70	·99	10	4	3·62	1·32	12	4	2·08	3·19	7	11
Nov. ..	2·44	1·92	9	7	3·82	·50	12	2	3·51	2·10	13	8
Dec. ...	2·17	2·57	8	9	2·78	4·84	9	15	2·31	2·38	8	8
Year ..	27·24	20·35	100	75	31·39	25·01	100	80	27·73	20·85	100	75

	(4) V. Devon. *Clevelands* [*Lyme Regis*].				(5) V. Cornwall. *Penzance.*				(6) VI. Gloucester. *Frampton-on-Severn.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	184
	in.	in.			in.	in.			in.	in.		
Jan. ...	4·09	4·11	11	11	5·90	4·34	12	9	2·99	3·40	10	11
Feb. ..	2·98	5·12	8	13	4·11	4·90	9	10	2·27	1·86	8	6
Mar. ..	2·14	3·18	5	8	2·88	4·63	6	10	1·64	2·52	5	8
April..	3·03	2·21	8	6	2·75	1·79	6	4	2·17	1·30	7	4
May ...	2·06	1·51	5	4	1·99	1·25	4	3	1·95	·65	6	2
June ..	2 69	2·55	7	7	2·48	1·45	5	3	2·36	3·08	8	10
July ..	2·87	4·14	8	11	2·97	4·23	6	9	2·83	3·25	9	11
Aug. ..	3·04	1·29	8	3	3·67	1·88	8	4	2·96	2·06	10	7
Sept...	3·68	2·25	10	6	3·88	3·89	8	8	3·17	1·40	11	5
Oct. ...	4 07	·93	10	2	5·41	2·09	12	5	2·74	·74	9	3
Nov. ..	4·14	2·09	11	6	5·39	3·11	12	7	2·78	1·89	9	6
Dec....	3 48	4·38	9	11	5·37	4·16	12	9	2·26	2·89	8	10
Year ..	38·27	33·76	100	88	46·80	37·72	100	81	30·12	25·04	100	83

ENGLAND (*Continued*).

	(7) VII. DERBY. *Mickleover.*				(8) IX. YORKS. *Malton.*				(9) X. CUMBERLAND. *Seathwaite.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.			in.	in.		
Jan. ...	2·26	2·94	8	10	2·01	3·14	7	11	18·75	22·51	14	17
Feb....	1·98	1·33	7	4	1·80	2·15	6	8	11·45	14·96	8	11
Mar. ..	1·48	1·20	5	4	1·65	2·22	6	8	9·89	13·98	7	10
April..	1·73	1·78	6	6	1·68	2·01	6	7	4·94	4·15	4	3
May...	2·15	1·22	7	4	1·93	·66	7	2	6·98	17·30	5	13
June ..	3·18	1·53	11	5	2·60	·48	9	2	7·81	1·47	6	1
July ..	3·14	4·05	10	13	2·51	2·77	9	10	8·77	10·01	7	8
Aug. ..	2·87	2·63	10	9	2·95	1·46	10	5	11·04	3·36	8	2
Sept...	2·82	2·00	9	7	2·85	·83	10	3	13·22	11·97	10	9
Oct. ...	3·02	·97	10	3	2·84	1·04	10	4	16·55	10·80	12	8
Nov...	2·71	1·06	9	4	3·09	1·31	11	4	11·82	6·70	9	5
Dec....	2·58	2·45	8	8	2·53	2·68	9	9	13·73	19·22	10	14
Year ..	29·92	23·16	100	77	28·44	20·75	100	73	134·95	136·43	100	101

WALES.

	(10) XI. CARMARTHEN. *Carmarthen.*				(11) XI. CARNARVON. *Llandudno.*			
	Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.		
Jan. ..	6·31	6·90	12	13	2·96	4·52	9	13
Feb....	4·38	5·79	8	10	2·29	2·98	7	9
Mar. ..	3·39	6·44	6	12	1·88	2·12	6	6
April..	2·89	2·05	5	4	1·88	1·19	6	4
May...	2·54	2·38	4	4	1·62	1·35	5	4
June ..	3·54	1·57	7	3	2·00	1·18	6	4
July...	3·90	5·55	7	10	2·71	4·48	8	13
Aug. ..	6·03	3·22	11	6	3·19	1·03	9	3
Sept...	5·20	4·24	10	8	3·75	1·67	11	5
Oct. ...	6·44	3·96	12	7	4·59	1·42	13	4
Nov...	5·10	3·17	9	6	3 91	2·23	11	6
Dec....	4·79	6·48	9	12	2·85	2·92	9	9
Year ..	54·51	51·75	100	95	33·63	27·09	100	80

SCOTLAND.

	(12) XV. Argyll. *Cantire, Stonefield.*				(13) XVI. Kinross. *Loch Leven.*				(14) XVII. Aberdeen. *Aberdeen.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.			in.	in.		
Jan. ...	8·26	12·80	12	18	3·82	5·60	10	15	2·03	2 85	6	9
Feb....	5·75	6·74	8	9	2·96	1·80	8	5	2·38	1·87	8	6
Mar. ..	5·38	5·73	7	8	2·12	2·60	6	7	2·07	3·10	7	10
April..	3·00	1·35	4	2	2·21	1·10	6	3	2·15	1·26	7	4
May...	3·43	6·20	5	9	2·29	3·60	6	9	1·87	1·30	6	4
June ..	4·54	1·22	6	2	2·77	·30	7	1	1·89	·91	6	3
July...	4·81	7·17	7	10	3·05	5·30	8	14	2·71	2·85	8	9
Aug..	6·16	7·36	9	10	4·08	1·50	11	4	3·52	1·98	11	6
Sept...	6·97	6·39	10	9	3·23	2·50	9	7	3·31	1·38	10	4
Oct. ...	9·36	9·14	13	13	4·31	3·10	11	8	2·77	2·34	9	7
Nov. ..	6·66	7·72	9	10	3·55	2·90	9	7	3·82	3·04	12	10
Dec....	7·41	12·13	10	17	3·66	6·20	9	16	3·23	1·60	10	5
Year ..	71·73	83·95	100	117	38·05	36·50	100	96	31·75	24·48	100	77

	(15) XVIII. Ross. *Loch Alsh, Inverinate.*				(16) XVIII. Inverness. *Culloden.*				(17) XIX. Orkney. *Sandwick.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.			in.	in.		
Jan. ...	7·30	13·24	10	18	1·77	3·74	7	15	3·34	5·33	9	15
Feb....	4·32	7·31	6	10	1·05	1·53	4	6	2·55	1·34	7	4
Mar. ..	5·97	3·61	8	5	1·75	1·37	7	5	2·64	3·63	7	10
April..	3·28	6·11	5	8	1·35	·52	5	2	1·87	·76	5	2
May...	4·79	6·06	7	8	1·78	1·82	7	7	1·87	2·08	5	5
June ..	5·58	2·87	8	4	2·25	·97	9	4	1·80	1·59	5	4
July...	5·29	5·43	7	8	2·78	3·87	11	15	2·66	2·54	7	7
Aug..	5·46	5·71	8	8	3·00	1·35	12	5	2·90	2·81	8	8
Sept...	7·37	6·15	10	8	2·90	·74	11	3	3·49	1·69	10	5
Oct....	8·95	9·93	12	14	2·29	1·70	9	7	4·29	5·40	12	15
Nov...	6·60	8·69	9	12	2·70	2·93	11	11	4·44	3·94	12	11
Dec....	7·46	5·46	10	8	1·84	2·66	7	11	4·39	4·31	12	12
Year ..	72·37	80·57	100	111	25·46	23·20	100	91	36·24	35·42	100	98

IRELAND.

	(18) XX. Cork. *Blackrock.*				(19) XX. Waterford. *Portlaw, Mayfield.*				(20) XXI. Dublin. *Dublin.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.			in.	in.		
Jan. ...	6·02	6·85	13	14	5·13	6·03	12	15	2·26	2·36	8	8
Feb....	4·59	9·45	10	20	3·74	8·51	9	20	2·16	3·52	7	12
Mar. ..	2·76	5·13	6	11	2·49	5·72	6	14	1·73	1·86	6	7
April..	3·10	1·93	6	4	2·90	1·78	7	4	2·11	1·53	7	5
May ..	2·16	1·70	5	4	2·10	2·23	5	5	1·72	1·36	6	5
June ..	3·55	·70	7	1	2·58	·55	6	1	2·20	1·25	8	5
July...	2·84	2·64	6	6	2·55	2·33	6	6	2·42	2·35	9	8
Aug. ..	3·83	·73	8	2	3·74	·94	9	2	3·18	·78	11	3
Sept...	4·15	2·07	9	4	3·85	2·49	9	6	2·41	1·21	9	4
Oct. ...	4·74	1·10	10	2	4·84	1·62	12	4	3·42	·83	12	3
Nov...	4·61	3·68	10	8	3·57	3·52	9	9	2·28	1·41	8	5
Dec....	4·76	3·64	10	8	4·16	3·74	10	9	2·58	2·01	9	7
Year ..	47·11	39·62	100	84	41·65	39·46	100	95	28·47	20·47	100	72

	(21) XXII. Galway. *Ballinasloe.*				(22) XXII. Sligo. *Sligo, Mount Shannon.*				(23) XXIII. Antrim. *Belfast.*			
	Amounts.		Per cent.		Amounts.		Per cent.		Amounts.		Per cent.	
	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884	Mean	1884
	in.	in.			in.	in.			in.	in.		
Jan....	4·36	5·40	11	14	4·23	5·53	10	13	3·49	5·55	10	16
Feb....	2·51	3·66	7	9	2·86	3·75	7	9	2·44	3·06	7	9
Mar. ..	2·38	3·35	6	9	2·92	2·17	7	5	1·87	3·64	5	10
April..	2·26	1·01	6	3	2 03	1·12	5	3	1·75	1·37	5	4
May...	2·41	3·22	6	8	2·25	3·93	5	9	2·20	2·67	6	8
June ..	3·19	·63	8	2	3·21	1·18	8	3	2·60	·77	8	2
July...	2·88	2·69	8	7	3·48	4·90	8	12	3·11	3·21	9	9
Aug. ..	4·03	2·42	10	6	4·19	3·29	10	8	3·49	2·42	10	7
Sept...	3·96	2·31	10	6	4·23	3·37	10	8	3·25	2·48	9	7
Oct....	4·43	2·80	11	7	5·57	4·40	13	10	4·62	2·14	13	6
Nov...	3·00	3·81	8	10	3·63	5·23	8	12	3·01	2·52	9	7
Dec....	3·48	5·44	9	14	3·70	4·28	9	10	3·09	3·45	9	10
Year ..	38·89	36·74	100	95	42·30	43·15	100	102	34·92	33·28	100	95

NOTES UPON THE MONTHLY FALL IN 1884.

JANUARY.

The rainfall of January was somewhat irregular, but, generally speaking, it was a wet month. Over the greater part of Scotland and the north of Ireland and England the fall was about 50 per cent. above the average, but towards the south it gradually diminished, and at some stations in the south of England there was a slight deficiency.

FEBRUARY.

The distribution of the rainfall in this month was extremely irregular, ranging from about a quarter of the average in the Eastern Counties of England to twice the average in the south of Scotland. The map very clearly illustrates the conditions, a deficiency at all Eastern stations (great in England and in N. Scotland, but in other parts not remarkable), and an excess, generally considerable, at Western stations and in the S. of Scotland. Over Ireland the fall was about 50 per cent. in excess.

MARCH.

There was a considerable excess in the S. of Ireland, in the S.W. corner of Scotland, and in the neighbourhood of Aberdeenshire, and a moderate one in S.W. England; but over the remainder of the British Isles the fall was remarkably near to the average.

APRIL.

April was a dry month over the whole of the British Isles, though of course individual stations could be found with a slight excess owing to local falls. In England, roughly speaking, the deficiency was less than one-third, and in Scotland and Ireland nearly one-half of the average.

MAY.

A very dry month over the whole of England, the fall at very many stations in the south being less than a quarter of the average. The two plus signs on the map represent Arncliffe and Seathwaite,

both upland stations with large rainfalls, which stations frequently exhibit conditions diametrically opposed to those prevailing over the country generally. In Scotland and Ireland the fall was, as a rule, slightly above the average, but the excess was considerable in S.W. Scotland and in the N. and W. of Ireland.

JUNE.

The rainfall of June was chiefly composed of torrential rains, which are always irregular in their distribution, so that one station may have less than half the average fall, while another, not 50 miles distant, may have a considerable excess; and thus, although the fall in this month over the S. of England was not greatly deficient, except in Norfolk, several stations report falls of only half or two-thirds of the average, and a few, falls of 50 per cent. more than the average. In the north of England the fall was remarkably small, and the same great deficiency prevailed over Scotland and Ireland; in fact, in any one of the three kingdoms a dozen stations might be found with only one-eighth of the average fall.

JULY.

Fortunately for all classes of the community this was not a dry month, and there can be no doubt that although the destruction caused by thunderstorms was very great; the value of the rain which accompanied them exceeded the loss a thousandfold. Over the greater part of England and Ireland the fall was about the average, but over Wales, the greater part of Scotland, and the north of England there was an excess of nearly 25 per cent.

AUGUST.

A dry month. Over England generally and in the N. of Scotland the fall was about half the average, but in the N. of England and S. of Scotland the deficiency was rather greater. Over the western highlands of Scotland a large area had a rainfall of considerably more than the average, but, as before mentioned, this is not at all an unusual accompaniment of a drought in the lowlands. In Ireland the fall varied from about one-quarter of the average in the S. and E. to about two-thirds in the N.W.

SEPTEMBER.

Dry over the whole of the British Isles, except in the extreme E. and S.E. of England, (where owing to the excessive fall of the 3rd and 4th, there was a considerable excess), and in some of the western

Isles of Scotland. In the S.W. of England the fall was about half the average, and the same in the west midland counties, and in the N.E. of Scotland; over the remainder of the British Isles, the deficiency averaged about one-third.

OCTOBER.

Yet another dry month, the third in succession and the sixth of the year. There were slight excesses in Norfolk and Suffolk (owing to a heavy fall on the 10th) and in the west of Ireland, and a considerable one in the extreme N. and W. of Scotland. Over the whole of the rest of the British Isles the fall was considerably less than the average; in England generally about half, and in the South Western Counties and in Wales not more than one-third; in Ireland two-thirds of the average, and in Scotland rather more.

NOVEMBER.

The seventh and last dry month of the year. Again there was an excess in the western highlands of Scotland and in W. and N.W. Ireland, but in England the fall was less than half the average in many districts, and, as a whole, was less than two-thirds. In Scotland the deficiency extended over the S. and extreme E., while in Ireland the deficiency was immaterial, except in the S.E.

DECEMBER.

The map for this month very clearly exhibits the conditions which prevailed, an average fall over the country generally, with a heavy fall in various districts and a moderate deficiency in N.E. Scotland and in a small district in Northumberland. The plus signs on the map nearly all represent a fall of more than 25 per cent. above the average.

THE DROUGHT OF 1884.

In consequence of the drought which prevailed in 1868, I prepared for, and published in, *British Rainfall*, 1868, an epitome of the dry periods in that year. I pointed out that up to that time no one had given a rigorous definition of a drought—a definition, that is to say, sufficiently precise to serve as a basis of comparison. As some readers of the present volume may not have access to that one, I reprint the first paragraph.

> "One great hindrance to the progress of the science of meteorology has been the absence of specific rules and definitions. We had difficulty enough in deciding what was to be considered a day of rain; that has been surmounted, except that there are, of course, a few who will hold to their own opinions, however large may be the majority, and however strong the facts, against them. Having cleared up this, and reduced sundry other vague matters to definite practice, the question arises, 'What is a drought?' Is it a series of days without *any* rain, if so, how could engineers speak of droughts of 140 or 150 days? If the line is not to be drawn so tightly as to exclude even one shower, where is it to be drawn—at falls of a tenth of an inch, or a quarter of an inch? All these rules are open to this difficulty—suppose a fall of 0·25 in. of rain in twenty-four hours is held to terminate a drought, are four separate daily falls of 0·20 in. to be included?"

After discussing other hypothetical cases, I pointed out that though the flow of water into reservoirs appeared the simplest and best index of times of drought, it was not available because—

> "(1). Ordinary observers could not assist. (2). The duration assigned to the drought would depend considerably on the nature of the soil in the district, and the character of the rainfall. In drawing up the following tables, we have taken two or three consecutive days of rain, or one fall of half an inch,

as terminating a period; and under the head of 'exceptions' we have given all falls exceeding 0·10 in., and the aggregate of *all* amounts during the period."

In subsequent years, the tables have been rendered less complicated by the division of the facts into two classes, "Absolute Droughts," and "Partial Droughts," the former being, as the heading implies, periods (of at least 14 days) with no rain at all, and the latter being periods of at least 28 days in which the total amount (irrespective of its distribution) was less than a quarter of an inch.

The following table gives these details for 39 stations, chosen for (1) their trustworthiness, and (2) their wide distribution over the British Isles, extending as they do from Lat. 51°, to Lat. 58°, and from nearly 2° E., to 10° W. Longitude.

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS		
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.
London (Camden Square, N.W.). *Middlesex.*	June 10	June 23	14	July 29	Aug. 26	29
Dorking (Abinger Hall) ..... *Surrey.*	May 18 June 9	June 2 June 27	16 19	May 5	June 2	29
Welwyn (Datchworth Rect.)..... *Herts.*	Mar. 12 May 13	Mar. 30 June 3	19 22	June 10 Sept. 7	July 8 Oct. 7	29 31
Maxey Vic. [Market Deeping] ... *Northampton.*	May 16	June 4	20	None		
Geldeston [Beccles] ..... *Norfolk.*	May 18	June 5	19	May 7 June 9	June 5 July 11	30 33
Marlborough .... *Wilts.*	None			None		
Torquay (Lamorna)..... *Devon.*	June 8	June 21	14	July 28	Aug. 27	31
St. Austell (Trevarna)..... *Cornwall.*	April 7 May 17 June 11	April 20 May 31 June 27	14 15 17	None		
Ilminster (White Lackington) ... *Somerset.*	June 12	June 27	16	None		
Ross (The Graig) ..... *Hereford.*	None			May 6	June 3	29
Patshull Gardens ..... *Stafford.*	Jan. 8 May 19 Aug. 5	Jan. 22 June 5 Aug. 19	15 18 15	None		

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.		
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.
Market Overton ..... *Rutland.*	May 20	June 4	16	None		
Worksop (Hodsock Priory) ..... *Notts.*	May 20	June 4	16	June 9	July 7	29
St. Michael's-on-Wyre ... . *Lancashire.*	May 17	June 4	19	None		
Thornton-in-Craven..... ..... *Yorks, W.R.*	May 17	June 3	18	None		
Cottingham ..... *Yorks, E.R.*	May 20	June 4	16	May 8	June 4	28
Felton..... *Northumberland.*	None			None		
Pawston [Coldstream]..... *Northumberland.*	May 21	June 4	15	None		
Blencowe, Penrith ..... *Cumberland.*	May 17	June 6	21	None		
Abergavenny (Larchfield) ..... *Monmouth.*	June 8	June 21	14	None		
Aberayron (Dolaeron) .... *Cardigan.*	June 7	June 27	21	None		
Ruabon (Wynnstay) ..... *Denbigh.*	May 20 July 30	June 4 Aug. 18	16 20	None		
Garliestown (Galloway Ho.) ..... *Wigton.*	April 7	April 22	16	None		
Cargen [Dumfries] ..... *Kirkcudbright.*	May 21 Nov. 13	June 3 Nov. 26	14 14	None		
Gilmerton Station ..... *Edinburgh.*	May 20	June 4	16	None		
Old Cumnock .... *Ayr.*	None			None		
Killearn (Old Ballikinrain)..... ... *Stirling.*	None			None		
Strontian (Laudale)... ..... *Argyll.*	April 8	April 24	17	None		
Islay (Ardbeg) ..... *Argyll.*	None			None		
St. Andrews (Newton Bank)..... *Fife.*	None			None		

STATION & COUNTY.	ABSOLUTE DROUGHTS.			PARTIAL DROUGHTS.		
	Began.	Ended.	Lasted.	Began.	Ended.	Lasted.
Midmar (Dun Echt Observatory) *Aberdeen.*	May 22	June 6	16	July 26	Aug. 23	29
Alness (Ardross Castle) .... *E. Ross.*	May 22	June 4	14	None		
Cork (Blackrock) .... *Cork.*	Nov. 13	Nov. 26	14	None		
Killarney (Woodlawn) ..... *Kerry.*	June 8	June 26	19	None		
Portlaw (Mayfield) ..... *Waterford.*	None			None		
Monkstown (Easton Lodge) ..... *Dublin.*	June 14	June 27	14	July 29	Aug. 26	29
Galway (Spiddle).. ..... *Galway.*	None			None		
Sligo (Mount Shannon) ..... *Sligo.*	None			None		
Belfast (Antrim Road) ..... *Antrim.*	June 14	June 27	14	None		

If our readers will refer to p. [112] of *British Rainfall*, 1880, they will find themselves face to face with a very curious fact. The year 1880 was wet in nearly all parts of England, in some parts extremely so, the excess amounting at several stations to 33 per cent. and upwards; yet in that wet year there were far more droughts—accepting, that is to say, the definition we have given—than in the dry year, 1884.

The table for 1880 is based upon the same number of registers as that we have just given for 1884; but the following abstract shows a remarkable contrast, and one just the reverse of what most persons would expect.

	Absolute Droughts.			Partial Droughts.		
	Number.	Average Duration.	Stations without one.	Number.	Average Duration.	Stations without one.
1880.....	60	18 days	5	45	32 days	10
1884.....	37	17 ,,	10	12	30 ,,	29

Taking the ABSOLUTE DROUGHTS in chronological order, they may be epitomized as follows:—

January 8 to 22.—In Staffordshire.

March 12 to 30.—In Hertfordshire.

April 7 to 22.—In Cornwall and the South West of Scotland.

May 16 to *June* 4.—General, except in Scotland and Ireland.

June 8 to 23.—At a few stations in the South of England, and at Killarney, Dublin and Belfast.

August 4 to 18.—On the borders between England and Wales.

The PARTIAL DROUGHTS are almost too few to be classified.

May 6 to *June* 3 (29 days).—In Surrey, Norfolk and Hereford.

June 9 to *July* 8 (30 days).—In Hertford, Norfolk and Nottingham.

July 28 to *August* 26 (30 days).—In Middlesex, Kent, Devon, Aberdeen and Dublin.

September 7 to *October* 7 (31 days).—In Hertfordshire.

This sufficiently proves that as regards *long* rainless, or nearly rainless, periods, 1884 was not at all remarkable. On the other hand, we know, from the important reports of hundreds of our correspondents (given on pages [80] to [127]), that water was extremely scarce, that the level of the subsoil water (*i.e.*, the supply to wells) was low, almost beyond precedent, and that many large towns suffered from water famine.

As regards these various towns, we think that the following paragraphs are worthy of preservation:

LONDON.—"Sir Francis Bolton pointed out that the ordinary summer flow of water at *Teddington Lock* is between 700 and 800 million gallons per 24 hours. The flow at the present time does not exceed 300 million gallons, and it has never been so low for the past 30 years. The *Thames Valley*, in fact, is suffering from drought."—*Times*, December 8th, 1884.

EAST CHESHIRE.—"The *Ashton*, *Staleybridge* and District Water Works Committee have decided to restrict the water supply to 12 hours a day. It is stated that the reservoirs, which are situated in the same neighbourhood as those of the Manchester Corporation, are nearly empty, and that even with a very heavy rainfall, it will be necessary to restrict the supply during the winter months, in order to make provision for next summer. The area of supply includes *Mossley*, *Dukinfield*, and other places in the vicinity."—*York Herald* (?) November 29th, 1884.

LANCASHIRE.—"The long run of dry weather is causing much inconvenience in almost every town throughout *N. E. Lancashire*, and unless there are rains very soon, there will be such a scarcity of water as has not been experienced since 1868. The reservoirs which supply the canal have been empty nearly all the summer, the slight rains of a few weeks ago making scarcely any impression upon the quantity of water. Traffic is suspended between *Skipton*

and *Foulrigg*, and also between *Church* and *Blackburn* partially. In *Burnley* and *Accrington* notices have been issued, warning consumers to be exceedingly economical in the use of water. The Corporation of *Burnley* have fears that their domestic supply may fail. At *Accrington*, the Company's reservoirs contain about a fortnight's supply, and they have already put the mills and the Railway Company on a limited supply, and have prohibited the Corporation from watering the streets. The supply of water to the printworks will not last much longer, though much of the water which in ordinary times is run away, is being utilised for steam purposes. At *Darwen* the Corporation have about a month's supply. In the vicinity of *Todmorden*, scores of houses have been without their usual water supply for weeks; and a mill is stopped at Waterside. At *Haslingden* many of the mills are short of water, and the town's supply is limited. At *Harwood, Rishton*, and *Clayton-le-Moors*, there is a good supply of domestic water from the Dean Clough reservoir and brook, which also supplies *Church*, and the western part of *Accrington*. On all hands there is a desire for rain."—*Manchester Courier*, August 26th, 1884.

MANCHESTER.—"*Manchester* is threatened with a water famine, the continuous dry weather having so reduced the store that four of the great reservoirs are quite dry. The gathering-ground is 19,000 acres of moorland, around the Longdendale Valley, between Manchester and Sheffield, and the supply is distributed to *Manchester*, *Salford*, and the surrounding districts, so that a total population of three-quarters of a million is involved."—*Standard*, October 27th, 1884.

BURNLEY.—Owing to the drought at *Burnley*, the Manager of the Leeds and Liverpool Canal has notified that the Summit Pool, near *Burnley*, will be closed to traffic, until a sufficient rain comes to enable the Company to re-open it. The Corporation have cautioned the inhabitants against using water extravagantly.

BRADFORD.—"A serious crisis has been reached in regard to the water supply of *Bradford* and district, which numbers an aggregate population of 370,000. The Water Works Committee of the Corporation have taken various steps to avert the disastrous consequences which must necessarily follow a total failure of the supply. Notices have been issued to many of the manufacturing concerns that the public supply of water will be discontinued, and that private wells must be resorted to. The public baths and wash-houses are to be forthwith closed; and the various railway companies have been notified that the town's water will no longer be available for locomotive purposes during the prevalence of the drought. Arrangements have been made with the *Leeds* Corporation for the supply of the outlying townships of *Pudsey* and *Stanningley*, whilst the offer of *Halifax* to supply *Liversedge* and another portion of the district has been accepted. Assistance to a substantial extent, however, cannot be expected from the neighbouring towns, owing to the varying nature of the levels. The Corporation possess twelve reservoirs, with a capacity of 1,584,339,000 gallons; but the total stored at the present moment does not exceed 50,000,000 gallons, compared with 1,087,000,000 at the corresponding date last year. The supply will be exhausted within four days, should no rain fall in the meantime. The condition of the compensation reservoirs, which are used for replenishing rivers and streams, from which water is drawn for

manufacturing purposes, is critical; and much inconvenience and loss are already being experienced by various industries, owing to the limited pressure of water in the mains."—*Standard*, October 27, 1884.

EAST YORKSHIRE.—"The dearth of water in the villages situated in the valleys of the *Yorkshire Wolds*, was stated on Wednesday to be greater now than has been experienced during the summer. *East Lutton* has for many months been without water, and depended for its supply upon *West Lutton*; but now the water at the last-named village is exhausted, and the two villages are indebted to *Helperthorpe* for a supply. The villagers have to tramp a couple of miles with their pails to fetch it daily."—*Hereford Times*, December 20th, 1884.

NORTH WALES.—"The prolonged drought has seriously affected the water supply of several towns in *North Wales*. At *Holyhead* there is an absolute failure of supply."—*Manchester Courier*, August 29th, 1884.

There is one essential difference between the failure of private and of farm supplies (such as is reported from so many parts of England and Wales by our correspondents), and the deficiency experienced in many large towns. Private supplies are, as a general rule, from wells of moderate depth—perhaps 80 ft. would not be very far from their average, and in many cases these wells respond with much promptitude to the fall of rain. It is easy to see that in such cases, and in some soils, a drought of even a month or two's duration will produce a deficiency. In other formations there is a large subterranean storage, and then it is a question of the average rain over a longer period. Public supplies, on the contrary, such as those of Manchester and Bradford, are afforded by storing in the valleys the winter snows and rains, and the surplus of the summer rains, which fall on the surrounding hills. The reservoirs formed in these valleys are constructed of such a size as is expected to carry the town through rainless periods by drawing upon the previously stored reserve—whence their name of reservoirs. When, therefore, there is an outcry of deficient supply, it proves that the reserve has been insufficient. But it does not show *why* it has been so. The storage may originally have been insufficient, or the town may have been crippled by Parliament compelling it to give undue compensation; or it may have grown faster than the storage has been increased, or there may have been great waste in the town, or a drought of unforeseen intensity and duration may have prevailed. Any one or more of these causes would put a town on short supply, and although a simultaneous failure in several towns appears at first sight to be overwhelming evidence that the true cause is a serious drought, it is not by any means certain that such is the case. Suppose that

there are a series of eight or nine wet years, towns which had allowed their storage to fall below the proper proportion to their requirements would go on without perceiving it, until an ordinarily dry period came, and then they would suffer, not because of exceptional drought, but because they had not preserved a proper margin of safety. It would be alike presumptuous and out of place for us to suggest why the various Lancashire and Yorkshire towns above reported upon had a deficient supply, but it must be remembered that some towns not only had a good supply, but were able to help their neighbours, and when such contrasts occur in districts of which the rainfall is similar, it scarcely seems as if all the difficulty can be charged against the drought. Let us not for a moment be misunderstood; we fully admit the existence of a long dry period—a drought, in Lancashire and Yorkshire. January was wet over the whole district; February near the average, at some stations a little above, and at others a little below it; from March to June there was generally very nearly but not quite the average; July was rather above the average. Then came four dry months, August to November, with perhaps a total deficiency of 8 inches, and simultaneously came the outcry. The question is, where were the reserves? Possibly the answer is that the reservoirs had not filled up in the previous winter, possibly it is in some of the explanations wholly independent of rainfall, or perhaps, most probably, in a combination of them all.

Lastly, we have to reconcile the apparently contradictory statements on p. [169], "As regards *long* rainless, or nearly rainless periods, 1884 was not at all remarkable"; with the above "we admit the existence of a long, dry period—a drought in Lancashire and Yorkshire. The explanation lies, firstly, in the definition given many years ago to "Absolute drought" and "Partial drought"; secondly, in the fact that, as mentioned by several observers, rain fell in 1884 just when it was most wanted; and, thirdly, in the fact that the deficiency in Lancashire and Yorkshire was something very different from a drought. Thornton-in-Craven is a fairly typical representative of the Lancashire and Yorkshire hills; the well-kept record of that station dates back to 1863, and therefore affords a thoroughly trustworthy mean wherewith to compare the fall of the last sixteen months.

Rainfall at Thornton-in-Craven, 1883-4.

Year and Month.	Average in Month. 1863-83.	Actual. 1883-4.	Excess.	Deficiency.	Total from Sept. 1, 1883.	
					Excess.	Deficiency.
	in.	in.	in.	in.	in.	in.
1883, September.....	4·18	6·89	2·71	...	2·71	...
,, October	4·40	5·91	1·51	...	4·22	...
,, November	4·02	4·52	·50	...	4·72	...
,, December	3·81	2·87	...	·94	3·78	...
1884, January.....	3·97	6·88	2·91	...	6·69	...
,, February	3·26	3·43	·17		6·86	...
,, March	2·81	2·46	...	·35	6·51	...
,, April	2·17	1·02	...	1·15	5·36	...
,, May	2·23	2·26	·03	...	5·39	...
,, June	3·05	·43	...	2·62	2·77	...
,, July	3·35	4·56	1·21	...	3·98	..
,, August	3·79	2·52	...	1·27	2·71	...
,, September.....	4·18	2·00	...	2·18	·53	...
,, October	4·40	2·44	...	1·96	...	1·43
,, November.....	4·02	1·69	...	2·33	...	3·76
,, December	3·81	6·30	2·49	...	...	1·27

This record confirms those which we were examining, when writing page [172]; it shows no marked deficiency until June, and it shows that during the four dry months, August, September, October, and November, more than $8\frac{1}{2}$ inches of rain fell.

ON THE RELATION OF THE TOTAL RAINFALL IN 1884 TO THE AVERAGE 1870-79.

As with the summary respecting the fall in the various months, so also with that for the year—we have evidence of several kinds.

The principal, alike in fulness of detail, in interest, and in extent, is that afforded by the remarks of the observers themselves. I have this year appropriated no fewer than 48 pages to this section, pages [80] to [127], because it appeared to me that for an exceptional year exceptional details should be given. The observers' remarks were fuller than usual, and I resolved upon printing them as fully as I could. I do not attempt to summarize them, they are scarcely adapted for that, but they are crammed with interesting and sometimes startling statements. I quote four merely as specimens.

KESTON, *Kent.*—Water so scarce that carts came daily 8 miles to get it.

WARBLETON, *Sussex.*—The scarcity of good water seems to have caused throat complaints.

ROSS, *Hereford.*—The year being dry, preserved the character of the fours being like 1834, 1844, 1854, 1864 and 1874. (For further remarks on this subject. see *Brit. Rain.* 1881, page 30).

LOUGHBOROUGH, *Leicester.*—The Reservoir at Nan Panton having ceased to yield a supply for the town, water was pumped into the mains from the Burleigh brook.

The most systematic data are contained on pages [176] to [179] whereon are given the mean fall for the decades 1860–69, and 1870–79 at each of 166 stations. For the same places is also given the fall in 1884, and its difference from the average 1870–1879, expressed both in inches of rainfall, and as a percentage of the average.

The arithmetical means of all these values are given in the ollowing :—

ABSTRACT.

COUNTRIES.	No. of Records.	Mean. 1870-79	1884.	Diff. from Average 1870-1879.	
				Amount.	Per cent.
		in.	in.	in.	
England and Wales.....	129	35·68	29·24	6·44	— 20
Scotland.....	32	40·68	40·25	·43	— 3
Ireland	5	38·10	35·50	2·60	— 5
Mean of all Stations	166	36·72	31·56	5·16	— 16

DIFFERENCE OF TOTAL RAINFALL IN 1884 FROM THE AVERAGE 1870-79.

The round dots indicate a rainfall within 10 per cent. of the average.

The + and — respectively show excess or defect of between 10 and 25 per cent.

The same signs enclosed by a ring indicate a departure from the average of more than 25 per cent.

[*Face p.* [174].

This shows in the strongest possible way the extremely small rainfall of 1884—an average deficiency of 16 per cent. (or one-sixth) over the whole of the British Isles, and of 20 per cent., (or one-fifth) over England and Wales.

Examination of the tables on pages [176] to [179] will show of course that this average deficiency of 20 per cent. is largely exceeded in some localities and not reached in others. Stations where the deficiency was 33 or more per cent. *i.e.*, where the fall in 1884 was not more than two thirds of the average, will be found in the following counties, Surrey (2), Cambridge, Essex, Lincoln (6), (some of the records from the M. S. & L. R. seem suspiciously low; hence the appending of the ?) and Haddington. The only districts with excesses are the English Lakes (very slight) the centre, and part of the west of Scotland, and some parts of Ireland.

It may be remembered that on page [144] when summing up the evidence afforded by the records of the largest daily fall of rain in the year at 1691 stations we showed that it indicated a rainfall in the year of, according to one calculation, 20 and to another of, 23 per cent. below the average. It is satisfactory to find that this agrees very closely with the above, though the methods by which these similar results have been reached have nothing whatever in common.

The Map facing this page is explained by the note at its foot.

It may be well to state that this map is not based solely upon the returns in the accompanying tables, but is supplemented and its geographical distribution improved by the utilization of returns from many stations which (the 1860–69 average not being perfect) are not available for insertion in those tables.

The striking feature is the universality of the — signs over England and Wales (with the solitary exception of one station in the extreme N.W. of Cumberland) and along the eastern half of Scotland. Equally worthy of note is the large number of stations at which (as shown by the — being enclosed in a ring) the deficiency was at least one quarter of the average.

COMPARISON OF THE RAINFALL OF THE YEAR 1884, WITH THE AVERAGE OF THE YEARS 1870-79.

ENGLAND & WALES.

DIV.	COUNTY.	STATION.	Average.		Depth in 1884.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
I.	Middlesex ...	London (Camden Square)	25·68	27·24	20·35	6·89 —	25
II.	Surrey	Seething Wells	26·55	25·73	15·06	10·67 —	41
,,	,, ...	Wimbledon.....	23·48	25·11	16·80	8·31 —	33
,,	,, ...	Kew Observatory	23·28	24·76	18·94	5·82 —	24
,,	Kent	Maidstone (Hunton Ct.)..	26·00	26·06	18·93	7·13 —	27
,,	,, ...	Charing (Otterden).....	29·09	31·02	23·94	7·08 —	23
,,	,, ...	Greenwich (Royal Obser.)	25·18	25·39	18·05	7·34 —	29
,,	West Sussex.	Arundel (Dale Park) ...	33·73	33·81	30·20	3·61 —	11
,,	,, ...	Chichester (Chilgrove) ...	33·22	35·03	26·42	8·61 —	25
,,	East Sussex..	Lewes (Glynde Place) ...	33·65	33·75	26·15	7·60 —	23
,,	,, ...	Maresfield (Forest Lodge)	31·48	33·37	26·16	7·21 —	22
,,	Hampshire ..	Isle of Wight (Osborne).	30·73	29·21	24·26	4·95 —	17
,,	,, ...	Petersfield (Liss Place) ...	38·03	36·65	30·43	6·22 —	17
,,	Berkshire ...	Newbury (Welford)	28·97	31·92	23·68	8·24 —	26
,,	,, ...	Long Wittenham	27·38	27·24	21·02	6·22 —	23
III.	Herts	St. Albans (Gorhambury).	27·85	29·07	23·59	5·48 —	19
,,	,, ...	Hemelhempstead	26·39	28·66	22·52	6·14 —	21
,,	,, ...	Berkhampstead	29·28	31·33	23·44	7·89 —	25
,,	,, ...	Hertford (Bayfordbury)..	25·01	27·02	18·59	8·43 —	31
,,	,, ...	Tring (Cowroast)	27·59	30·62	23·75	6·87 —	22
,,	,, ...	Hitchin	23·92	25·67	20·75	4·92 —	19
,,	,, ...	Royston	23·57	23·74	16·68	7·06 —	30
,,	Buckingham.	High Wycombe	25·71	25·87	20·23	5·64 —	22
,,	Oxford.....	Banbury (High Street) ..	26·22	28·51	20·74	7·77 —	27
,,	Northampton	Northampton (Althorp)..	23·35	26·93	20·59	6·34 —	24
,,	Bedford	Cardington .....0 ft.	22·49	25·13	17·82	7·31 —	29
,,	,, ...	,, ... 3 ft.	21·76	23·69	16·89	6·80 —	29
,,	Cambridge...	Ely (Stretham)	20·61	23·11	15·47	7·64 —	33
IV.	Essex	Braintree (Bocking)	23·98	26·20	17·58	8·62 —	33
,,	Suffolk	Bury S. Edmun. (Westley)	23·52	25·51	18·34	7·17 —	28
,,	,, ...	,, (Barton)	23·68	25·71	19·10	6·61 —	26
,,	,, ...	,, (Culford)	24·84	26·20	19·18	7·02 —	27
,,	,, ..	Carlton Colville	24·29	26·42	22·90	3·52 —	13
,,	Norfolk	Norwich (Honinghm Hall)	23·98	27·31	18·90	8·41 —	31
,,	,, ...	,, (Cossey)	24·04	27·44	20·64	6·80 —	25
,,	,, ...	Holkham.....4 ft.	23·88	26·21	20·04	6·17 —	24
,,	,, ...	Hunstanton	19·56	23·26	16·93	6·33 —	27

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average.		Depth in 1884.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.		
V.	Wiltshire ...	Heytesbury (Chitterne)...	29·28	30·53	24·06	6·47 —	21
,,	,, ...	Swindon (Pen Hill)	28·59	29·64	23·15	6·49 —	22
,,	,, ...	Thames Hd. [Cirencester]	28·29	33·06	27·08	5·98 —	18
,,	Dorset	Cerne Abbas (Melbury)...	39·99	40·92	34·63	6·29 —	15
,,	Devon	Tavistock Public Library	43·36	52·52	39·40	13·12 —	25
,,	,, ...	Bovey Tracey	43·13	46·80	37·36	9·44 —	20
,,	,, ...	Exeter (D. & E. Inst.) ...	31·76	34·69	27·28	7·41 —	21
,,	,, ...	Barnstaple	39·91	42·43	37·97	4·46 —	11
,,	Cornwall ...	Penzance (South Parade).	41·51	46·80	37·72	9·08 —	19
,,	,, ...	Bodmin (Castle St.) 2½ ft.	47·71	52·01	42·62	9·39 —	18
,,	Somerset ...	Glastonbury (Street) 1 ft.	30·01	33·14	29·18	3·96 —	12
,,	,, ...	Sherborne Reservoir	42·10	47·26	38·01	9·25 —	20
VI.	Gloucester ...	Clifton	34·09	36·36	33·39	2·97 —	8
,,	Hereford ...	Ross (The Graig)	28·21	31·75	26·92	4·83 —	15
,,	Shropshire...	Oswestry (Hengoed)	35·65	39·55	30·83	8·72 —	22
,,	Worcester ...	Northwick Park.....	28·02	32·34	24·49	7·85 —	24
,,	,, ...	Tenbury (Orleton)	30·90	33·26	25·96	7·30 —	22
VII.	Leicester ...	Thornton Reservoir	25·61	27·59	21·34	6·25 —	23
,,	,, ...	Loughborough(Cedar Cot)	27·67	29·54	22·95	6·59 —	22
,,	,, ...	Belvoir Castle.....	24·48	25·75	18·21	7·54 —	29
,,	Lincoln	Spalding (Pode Hole).....	25·34	24·82	16·75	8·07 —	33
,,	,, ...	Boston.....	22·09	23·53	16·17	7·36 —	31
,,	,, ...	Lincoln ..... M.S.&L.R.	20·87	23·70	15·43	8·27 —	35
,,	,, ...	Gainsborough M.S.&L.R.	21·66	22·35	13·43?	8·92 —	40
,,	,, ...	Stockwith ...M.S.&L.R.	21·35	23·20	17·19	6·01 —	26
,,	,, ...	Brigg .....M.S.&L.R.	24·12	23·31	13·11?	10·20 —	44
,,	,, ...	Grimsby .....M.S.&L.R.	21·39	23·04	15·34	7·70 —	33
,,	,, ...	Barnetby .....M.S.&L.R.	22·16	25·17	17·83	7·34 —	29
,,	,, ...	Appleby Vicarage	24·10	26·64	19·85	6·79 —	26
,,	,, ...	New Holland M.S.&L.R.	22·66	25·29	16·54	8·75 —	35
,,	Nottingham.	Worksop .....M.S.&L.R.	22·47	25·63	19·30	6·33 —	25
,,	,, ...	Retford .....M.S.&L.R.	22·74	23·04	16·99	6·05 —	26
,,	Derby...	Bretby [Burton]...	27·41	30·97	22·58	8·39 —	27
,,	,, ...	Chesterfield .. M.S.&L.R.	26·93	30·54	22·85	7·69 —	25
,,	,, ...	Combs Moss M.S.&L.R.	49·62	45·71	38·21	7·50 —	16
,,	,, ...	,, ReservoirM.S.&L.R.	50·01	45·67	34·48	11·19 —	25
,,	,, ...	Chapel-en-le-FrithMS&LR	41·95	42·56	36·86	5·70 —	13
,,	,, ..	Kilnarsh(Norwood)MS,LR	24·59	26·79	19·66	7·13 —	27
,,	,, ...	WoodheadStationMS&LR	52·19	49·87	43·75	6·12 —	12
VIII.	Cheshire.. ...	Bosley Reservoir MS&LR	32·04	34·10	29·25	4·85 —	14
,,	,, ...	,, Minns M.S.&L.R.	32·85	33·90	27·91	5·99 —	18
,,	,. ...	Bollington (Spond's Hill)	37·46	35·52	30·00	5·52 —	16
,,	,, ..	Whaley .....M.S.&L.R.	43·89	43·38	39·90	3·48 —	8
,,	,, ...	MarpleTopLockM.S&L.R	35·25	35·94	30·44	5·50 —	15
,,	,, ...	,, Aqueduct MS&LR	34·81	33·73	29·28	4·45 —	13
,,	,, ...	Godley Reservoir	33·98	34·85	29·53	5·32 —	15
,,	,,	Newton .....M.S.&L.R.	31·63	29·30	27·81	1·49 —	5
,,	,, ...	Mottram (Matley's Field)	37·73	36·32	33·81	2·51 —	7

ENGLAND & WALES.—*Continued.*

DIV.	COUNTY.	STATION.	Average.		Depth in 1884.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
VIII.	Cheshire.....	Arnfield Reservoir	37·23	41·38	34·36	7·02 —	17
,,	,, ...	Rhodes Wood Reservoir..	46·32	44·74	37·40	7·34 —	16
,,	,, ..	Woodhead Reservoir	51·83	49·74	44·59	5·15 —	10
,,	Lancashire...	Denton Reservoir	32·97	33·78	27·14	6·64 —	20
,,	,, ...	Gorton Reservoir	33·71	34·14	27·06	7·08 —	21
,,	,, ...	Manchester (Ardwick) ..	32·60	36·72	28·48	8·24 —	22
,,	,, ...	,, (Piccadilly)MS&LR	36·78	34·72	29·33	5·39 —	16
,,	,, ...	Fairfield .....M.S.&L.R.	40·90	37·66	30·43	7·23 —	19
,,	,, ...	Ashton Waterhouses MSLR	36·13	39·24	32·41	6·83 —	17
,,	,, ...	Bolton (The Folds).....	48·98	47·23	35·75	11·48 —	24
,,	,, ...	,, (Heaton)1 ft. 3 in.	44·21	45·11	31·80	13·31 —	30
,,	,, ..	Ormskirk (Rufford)	35·00	36·65	28·57	8·08 —	22
,,	,, ...	Bolton (Belmont)	56·61	59·91	49·60	10·31 —	17
,,	,, ...	Heywood (Nayden Dane).	44·13	44·67	34·47	10·20 —	23
,,	,, ...	Blackburn (Guide Res.)..	41·30	44·49	31·45	13·04 —	29
,,	,, ...	Blackpool (South Shore).	32·99	34·43	30·42	4·01 —	12
,,	,, ...	Stonyhurst College... 1 ft.	48·56	48·74	42·27	6·47 —	13
,,	,, ...	Clitheroe (Downham Hall)	44·79	43·40	35·44	7·96 —	18
,,	,, ...	Cartmel (Holker)	45·63	45·13	41·92	3·21 —	7
,,	,, ...	Monk Coniston Park ...	85·55	74·86	67·80	7·06 —	9
IX.	York, W.R...	Sheffield (Redmires)	39·68	42·80	37·18	5·62 —	13
,,	,, ...	,, (Broomhall Pk.)	31·28	32·67	27·58	5·09 —	16
,,	,, ...	Dunford Bridge Station..	56·18	52·51	40·93	11·58 —	22
,,	,, ...	Penistone.....	30·57	34·37	33·31	1·06 —	3
,,	,, ...	Leeds (Leventhorpe Hall)	23·26	24·91	19·04	5·87 —	24
,,	,, ...	Halifax (Midgeley Moor).	50·00	48·07	44·17	3·90 —	8
,,	,, ...	,, (Warley)	46·33	45·27	41·85	3·42 —	8
,,	,, ...	Leeds (Holbeck).....	22·85	25·02	21·02	4·00 —	16
,,	,, ...	Arncliffe	60·07	60·95	58·82	2·13 —	4
,,	,, E.R ..	Hull (Beverley Road) ...	25·02	27·30	19·26	8·04 —	29
,,	,, N.R...	Malton.....	27·46	28·44	20·75	7·69 —	27
X.	North'mblnd	Allenheads	51·16	48·49	42·94	5·55 —	11
,,	,, ..	N. Shields (Rosella Place)	26·06	28·02	19·31	8·71 —	31
,,	,, ...	Stamfordham	27·64	30·10	23·29	6·81 —	23
,,	,, ...	Whittle Dean..	25·42	27·75	23·15	4·60 —	17
,,	,, ...	Ilderton (Lilburn Tower).	28·66	31·33	27·73	3·60 —	11
,,	Cumberland.	Seathwaite	154·05	134·95	136·43	1·48 +	1
,,	,, ...	Ullswater (Hallsteads) ...	58·13	55·31	54·20	1·11 —	2
,,	,, ..	Keswick Post Office 6 ft.	62·40	59·14	68·52	9·38 +	16
,,	,, ...	Bassenthwaite(Mirehouse)	53·76	50·20	51·66	1·46 +	3
,,	,, ...	Cockermouth(Whin. Hall)	57·37	52·15	55·24	3·09 +	6
,,	Westm'relnd	Kendal...	53·32	51·78	44·47	7·31 —	14
XI.	Glamorgan..	Cardiff (Ely)	42·02	46·35	41·89	4·46 —	10
,,	Carnarvon...	Llandudno	31·00	33·63	27·09	6·54 —	19

SCOTLAND.

DIV.	COUNTY.	STATION.	Average.		Depth in 1884.	Difference from average, 1870-9.	
			1860-9.	1870-9.		Amount.	Per cent.
			in.	in.	in.	in.	
XII.	Kircudbright	Cargen [Dumfries]	44·37	46·65	43·85	2·80 —	6
,,	Dumfries	Dumfries (Crich. Asylum)	39·00	41·84	38·40	3·44 —	8
,,	Roxburgh	Kelso (Springwood Park)	24·66	27·90	23·39	4·51 —	16
XIII.	Selkirk	Bowhill	33·03	35·21	30·64	4·57 —	13
,,	Peebles	North Esk Reservoir	38·01	38·66	38·00	0·66 —	2
,,	Haddington.	East Linton	23·77	29·36	19·45	9·91 —	34
,,	Edinburgh	Glencorse	37·52	40·52	36·96	3·56 —	9
,,	,,	Harlaw	37·64	38·04	36·30	1·74 —	5
XIV.	Lanark	Hamilton (Bothwell Cas)	28·89	31·72	33·74	2·02 +	6
,,	Ayr	Kilmarnock (N. Craig)	43·29	40·16	40·97	0·81 +	2
,,	Renfrew	Ryat Lynn	47·80	50·07	55·10	5·03 +	10
,,	,,	Waulk Glen	49·85	48·41	51·80	3·39 +	7
XV.	Stirling	Stirling (Kerse)	32·96	33·47	35·40	1·93 +	6
,,	Argyll	Lochgilphead (Poltalloch)	54·25	56·35	56·10	0·25 —	0
,,	,,	Stonefield	69·62	71·73	83·96	12·23 +	17
XVI.	Kinross	Loch Leven	36·22	38·05	36·50	1·55 —	4
,,	Perth	Aberfoyle	61·82	59·39	63·20	3·81 +	6
,,	,,	Dunblane (Kippenross)	36·16	36·00	39·60	3·60 +	10
,,	,,	Lanrick Castle	48·48	47·46	57·65	10·19 +	21
,,	,,	Bridge of Turk	61·89	72·32	83·00	10·68 +	15
,,	,,	Auchterarder (Colquhalzie)	40·34	40·12	44·39	4·27 +	11
,,	Forfar	Craigton M	34·88	41·96	34·15	7·81 —	19
,,	,,	Hill Head M	35·19	41·82	34·46	7·36 —	18
,,	,,	Arbroath	29·05	30·49	24·87	5·62 —	18
,,	Kincardine	The Burn	34·91	37·85	32·50	5·35 —	14
XVII.	Aberdeen	Braemar	33·40	38·14	43·50	5·36 +	14
,,	,,	Aberdeen (Rose Street)	29·43	31·75	24·48	7·27 —	23
,,	Banff	Gordon Castle	29·19	32·26	22·63	9·63 —	30
XVIII	Inverness	Culloden	27·08	25·46	23·20	2·26 —	9
XIX.	Sutherland	Golspie (Dunrobin Cas.) M	27·69	31·94	27·90	4·04 —	13
,,	Orkney	Pomona (Sandwick)	38·85	36·24	35·42	0·82 —	2
,,	,,	Shapinsay (Balfour Cas.)	32·41	30·41	36·60	6·19 +	20

IRELAND.

XX.	Cork	Cork Royal Institution	34·77	36·35	33·86	2·49 —	7
,,	Waterford	Portlaw	44·44	41·65	39·46	2·19 —	5
XXI.	Kilkenny	Inistioge (Woodstock)	39·38	46·64	36·34	10·30 —	22
XXIII	Armagh	Armagh Observatory..1ft.	32·01	30·95	34·55	3·60 +	12
,,	Antrim	Belfast (Queen's Coll.)	34·22	34·92	33·28	1·64 —	5

EXTREMES OF RAINFALL IN 1884.

Largest Rainfall, at The Stye, Cumberland..... 184·75 in.
Least Rainfall, at Chatteris (Horseway Lock), Cambridgeshire 12·01 ,,

ENGLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
iv. X.	The Stye	184·75	III.	Chatteris (Horseway Lock)	12·01
,,	Seathwaite (4 in.)	139·03	IX.	Patrington (Spurn Head)	13·57
,,	Styehead Tarn	119·45	III.	Stanground Sluice	14·24
,,	Ullscarf	115·50	II.	Erith (Crossness)	14·83
,,	Sprinkling Tarn	114·06	II.	Surbiton (Seething Wells)	15·06
,,	Rosthwaite (Castle Lodge)	114·00	III.	Rothwell	15·31

WALES.

Greatest.			Least.		
Div.		in.	Div.		in.
XI.	Pen-y-gwryd	107·00	XI.	Rhyl (Sedgley House)	22·74
,,	Llanbedr-y-Cennin (Llyndulyn)	100·55	,,	Rosset (Trevalyn Hall)	24·04
,,	Neath (Glyncorrwg)	87·00	,,	Prestatyn (Nant)	25·59
,,	Garthbibio (Bwlch Tomlyd)	81·70	,,	Holywell (Bagillt)	25·72
,,	Llangurig (Esgair Clochfau)	70·00	,,	St. Asaph (Nantllys)	26·42
,,	Ystalyfera	69·28	,,	Montgomery	26·78

SCOTLAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XVIII.	Skye (Sligachan)	151·97	XVIII.	Fearn (Lower Pitkerrie)	17·40
,,	Loch Shiel (Glenaladale)	127·33	XVII.	Forres, H.R.S.	18·00
,,	Glenquoich	124·12	,,	Nairn (Achareidh)	18·58
XV.	Loch Eil (Conaglen)	110·89	XVIII.	Fearn (Arboll)	18·82
XVI.	Glen Gyle	107·90	XVII.	Elgin (Highfield)	19·06
XV.	Strontian (Laudale)	101·78	XIII.	East Linton	19·45

IRELAND.

Greatest.			Least.		
Div.		in.	Div.		in.
XX.	Killarney (Gap of Dunloe)	101·90	XXI.	Glasnevin (Botanic Gardens)	18·46
,,	Mangerton	79·00	,,	Dalkey (Bellevue Park)	19·88
,,	Dunmanway (Coolkelure)	73·54	,,	Dublin (FitzWilliam Square)	20·47
,,	Kenmare (Derreen)	67·32	,,	,, (Phœnix Park)	21·26
,,	Valencia (Telegraph Station)	64·17	,,	Monkstown (Easton Lodge)	21·60
,,	,, (Observatory)	63·77	,,	Clonee (Williamstown)	23·15

GENERAL TABLES

OF

TOTAL RAINFALL IN 1884,

AT UPWARDS OF

2000 STATIONS

IN THE

BRITISH ISLES.

EXPLANATION OF THE ARRANGEMENTS OF THE FOLLOWING GENERAL TABLES.

The divisions are the same as those adopted by the Registrars General of England and Scotland. The boundaries of these divisions are shown on the map facing p. 170 of *British Rainfall*, 1876.

The counties follow the same order as in the reports of the before-mentioned officers; but an alphabetical list of the counties is given, whereby the page or pages on which all returns from each county will be found can be at once ascertained.

The stations in each county are arranged nearly in the order of their latitude from South to North.

In order to facilitate finding the fall in any part of the country, the first name is almost always that of a place given in *Bradshaw*, the *British Postal Guide*, or the *Clergy List*; the second name is generally added to fix accurately the site of Observation; but in a very few instances, this second name is in [ ] instead of ( ); it then shows that the nearest town is in an adjoining county. For instance, "Lowestoft (Gisleham)" means Gisleham, near Lowestoft, both being in one county, but "Geldeston [Beccles]" means Geldeston, Norfolk, near Beccles, in another county—Suffolk.

The contents of the columns are sufficiently explained by the headings, except that in the column headed "diameter," figures will occasionally be noticed of a different type from the rest of the tables, these figures indicate the length of the sides of rectangular mouthed gauges. These measurements are all in inches.

The letter D denotes that a copy of the daily record has been received, that it is perfect throughout the year, and that the printed amount is the correct total of these daily entries. The letter M indicates a monthly record, *i.e.*, that the observation is made only on the first of each month.

An asterisk * denotes that the gauge was tested before erection, and a † that it has been visited and examined since. A note of interrogation (?) implies doubt, not necessarily error. ... indicates the absence of information.

In the column of altitudes several symbols are used, their meaning is as follows:—⊼, that a series of levels has been taken from the gauge to an Ordnance bench mark; T, that the height is estimated or ascertained approximately from the same source; L, that levels have been taken from the gauge to the sea, or to some datum other than Ordnance mean sea level; B, that the altitude has been taken by the barometer; and ?, that the height is uncertain.

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ENGLAND AND WALES.

DIVISION I.—MIDDLESEX.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
MIDDLESEX.							
Sunbury (Hanworth Road)	W. B. Bryan, Esq., C.E.	8	1	0	50	16·24	129
Hampton Wick (The Grove)	The late Sir T. J. Nelson	5	1	1	27 ⊼	16·79	...
Teddington (Gomer House)	R. D. Blackmore, Esq.	5	0	10	26 ⊼	16·84	129
Staines (Knowle Green)	Miss Pellatt	5	5	2	...	18·40	128
Hanworth (Riversdale)	G. Anderson, Esq.	5	1	0	67 T	16·20	...
D Isleworth (Spring Grove)	R. W. Peake, Esq.	5	1	3	69 T	18·36	111
D† ,, (Dunster Lodge)	Miss Ormerod	5	1	0	65 ⊼	18·72	156
D Gunnersbury Station	E. Mann, Esq.	5	0	11	35	18·96	133
D Westminster (Spring Grdns), S.W.	Sir J. W. Bazalgette, C.E	8	6	0	35 ⊼	19·26	123
,, (,, ,,)	,, ,, ,,	12	65	11	95 ⊼	17·53	123
,, (,, ,,)	,, ,, ,,	8	66	4	95 ⊼	15·84	123
Kensington (Campden Hill, W.)	T. Hack, Esq., C.E.	8	4	10	130 ⊼	19·23	131
D Kensal Green (Gas Works)	E. Mann, Esq.	...	32	0	132?	15·60	116
D London (Lansdowne Cres. W.)	G. T. Gwilliam, Esq.	5	0	9	79 T	18·59	151
,, (Guildhall), E.C.	Col. Haywood, C.E.	8	2	6	49 T	16·52	111
,, (,,)	,, ,, ,,	8	51	0	98 T	17·61	...
,, (Old Street), E.C.	The Royal Meteor. Soc.	5	1	0	70 T	20·67	184
Perivale (Sewage Farm)	C. Jones, Esq.	5	1	0	56	20·74	132
Hillingdon (Highfield)	J. M. Fountain, Esq.	5	1	0	...	19·83	...
London (Regent's Pk. R. Bot. Soc.)	W. Sowerby, Esq.	8	1	0	126 ⊼	19·52	147
D ,, (Springfield Road), N.W.	H. Sowerby Wallis, Esq.	8	1	3	118 T	20·18	138
,, (,, ,,) ....M	,, ,, ,,	5	5	9	123 T	18·78	...
D† ,, (Camden Square), N.W.	G. J. Symons, Esq. F.R.S	8	0	8	111 ⊼	20·35	150
,, (,, ,,) ....M	,, ,, ,,	5	1	0	111 ⊼	20·09	...
† ,, (235, Camden Road), N.	W. B. Butler, Esq.	5	3	0	160 T	20·15	146
† ,, (,, ,,) ,,	,, ,, ,,	5	1	1	160 T	20·31	...

DIVISION I.—MIDDLESEX.—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1884.	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MIDDLESEX—(*con.*)						
Hackney (Richmond Road), E....	J. W. Tripe, Esq. M.D.	5	7 0	65 ⅄	18·24	148
Holloway (Manor Road), N.....	Miss Varty	5	1 2	100	21·16	...
Hampstead (Roslyn House) N.W.	C. H. L. Woodd, Esq..	8	1 4	370 T	23·30	...
,, (Kidderpore Reserv.)	T. Hack, Esq., C.E. ...	8	1 6	323 ⅄	20·76	118
ɒ† ,, (Branch Hill Lodge)	B. Woodd Smith, Esq..	8	0 10	380 T	20·30	145
† ,, (,, ,, ,,)	,, ,, ,,	8	0 10	380 T	21·07	...
† ,, (Squire's Mount) ...	Rogers Field, Esq. C.E.	5	1 0	388 ⅄	22·40	152
,, (The Pryors)	,, ,, ,, ,,	5	1 0	327 ⅄	21·25	150
ɒ Stoke Newington Res., N.....	J. Francis, Esq., C.E.	9	3 3	116 T	19·29	142
Stamford Hill (Cazenove Road)..	Capt. R. Braine.....	8	1 3	...	18·63	...
ɒ†Highgate Nurseries, N....	J. Cutbush, Esq.	5	1 0	394 T	22·26	141
†Child's Hill (Helenslea, N.W) M	A. J. Woodhouse, Esq.	5	1 6	245 T	20·16	...
ɒ Upper Clapton (Warwick Road)	W. Hayward, Esq. ...	5	3 6	...	19·67	152
* ,, ,, (The Common)..	J. Parnell, Esq.	5	1 1	98 ⅄	18·94	146
Finsbury Park	Rev. E. Healy	5	1 3	120	21·00	...
ɒ†Muswell Hill	Miss Abethell.....	5	0 10	310 T	23·96	162
Finchley East (Elmhurst).....	B. C. Wainwright, Esq.	8	0 7	300 T	22·18	...
,, ,, (Ardencaple).....	G. W. Robertson, Esq.	5	1 0	300?	23·98	...
ɒ ,, (Avenue House).....	H. C. Stephens, Esq....	5	1 0	275 T	22·66	150
ɒ Pinner Hill.....	A. Helsham-Jones, Esq.	5	3 6	410 T	19·56	141
ɒ Uxbridge (Harefield Park)	W. F. Vernon, Esq. ...	8	1 0	296 ⅄	21·73	121
ɒ Great Stanmore (Springlands)...	J. W. Scott, Esq.	5	1 0	450 T	22·30	155
,, ,, (,,)...	,, ,, ,,	8	30 0	480 ⅄	21·43	...
Winchmore Hill	W. T. Paulin, Esq. ...	8	1 0	.	20·88	155
ɒ Enfield (Old Park)	A. L. Ford, Esq.	5	1 9	156 T	22·34	168
ɒ ,, (Nag's Head Lane)	J. Francis, Esq., C.E..	12	3 0	108 T	22·59	158
ɒ ,, Chase	T. Paulin, Esq.	8	1 0	350?	22·87	133
,, ,, ...	,, ,, ...	5	1 0	...	23·02	133
,, ,, ...	,, ,, ...	5	5 0	...	22·55	133
ɒ Monken Hadley [Barnet].....	F. A. Milne, Esq.	5	0 8	226 T	23·93	155

DIVISION II.—SOUTH EASTERN COUNTIES.

SURREY.						
ɒ Haslemere	J. W. Penfold, Esq. ...	8	4 0	481 ⅄	26·72	153
,, (Grayswood Hill)	B. E. C. Chambers, Esq.	5	1 0	580 ⅄	26·18	...
Godalming (Dunsfold)	Mr. W. Underwood ...	5	2 6	166	19·30	...
Haslemere (Weycombe)	G. B. Buckton, Esq. F.R.S.	5	4 0	583 ⅄	25·74	...
Godalming (Hascombe).....	E. S. Rowcliffe, Esq....	10	1 6	170	21·30	...
ɒ Ewhurst (Heathside).....	J. Sparkes, Esq.	5	0 9	600 ⅄	26·04	166
ɒ Godalming (Witley)	Miss F. I. Foster	5	1 0	350?	22·91	148
Dorking (Holmbury).....	Mr. Bayman	5	1 0	553 T	25·68	158
ɒ ,, (Abinger Hall)	Sir T. H. Farrer, Bt....	8	2 0	400	22·17	129
† ,, (Holmwood)	A. Sconce, Esq.	5	1 2	320 T	24·82	...
,, (Fir Tor)	F. Taylor, Esq.	5	0 10	280 B	22·96	...
,, ...	H. Fielder, Esq.	...	...	...	26·32	...
ɒ Betchworth (Brockham Vic.) ...	Rev. A. Cheales	5	1 0	158 ⅄	21·92	143

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
SURREY—(*con.*)						
D Guildford (Guildown)	Miss J. P. Hadden	5	0 11	220 T	19·36	149
D ,, (,,)	J. Rand Capron, Esq.	5	1 1	249 ⅄	18·70	145
D Farnham (The Bourne Vicarage)	Rev. T. W. Sidebotham	5	1 0	308 ⅄	21·77	148
D Reigate (Woodhatch Lodge)	T. B. Haywood, Esq.	5	1 0	270 T	22·51	156
D ,, (Ringley Mead)	R. L. Hesketh, Esq.	5	1 1	345 T	22·88	142
Dorking (The Denbies)	G. Dines, Esq.	5	1 0	610 T	23·99	...
D† Redhill (Oxford Road)	W. H. Tyndall, Esq.	8	1 0	300 ⅄	23·03	168
D ,, (Thornielee)	N. Southall, Esq.	8	1 0	275 T	23·55	141
D Reigate (Dovers Lodge)	R. W. Clutton, Esq.	5	0 7	192	23·29	115
D ,, (Holmfels)	The late G. Baker, Esq.	5	1 0	264 T	22·66	158
D ,, (Springfield)	T. P. Newman, Esq.	5	1 0	300 ⅄	24·32	169
,, (Castle Grounds)	Mr. G. Crutchfield	5	1 0	325 ⅄	22·22	138
D ,, (Doods)	G. E. Pym, Esq.	5	1 6	365 T	22·97	169
† ,, (Wray Park)	A. Rosling, Esq.	5	1 0	330 T	25·07	...
D ,, (Nutwood)	H. E. Gurney, Esq.	5	1 4	330 ?	22·50	148
D Nutfield Priory	J. Fielden, Esq.	8	1 2	468 ⅄	21·41	156
D ,, (Claremont)	W. T. Reynolds, Esq.	5	1 0	468 ?	22·28	137
D Reigate Hill	Baldwin Latham Esq CE	5	1 0	687 ⅄	23·73	152
D Godstone (Tyler's Green)	,, ,, ,,	5	1 0	366 ⅄	20·49	105
D Guildford (Wern)	Major Mathew	5	4 0	170	18·40	106
D Titsey [Westerham]	Baldwin Latham Esq CE	5	1 0	448 ⅄	24·91	194
D ,, (Botley Hill Farm)	,, ,, ,,	5	1 0	864 ⅄	24·90	163
D Chipstead (Parson's Green)	,, ,, ,,	5	1 0	506 ⅄	25·16	131
Caterham Asylum	G. S. Elliot, Esq., M.D.	5	1 0	610	21·35	...
,, Valley (Birchwood House)	C. F. Rutley, Esq.	5	1 0	471 ⅄	22·50	...
Pirbright Vicarage	Rev. F. Owston	5	1 0	151 ⅄	18·10	167
D† Chelsham (Henley)	Baldwin Latham Esq CE	5	1 0	607 ⅄	24·88	157
D Kenley	,, ,, ,,	5	1 0	501 ⅄	23·51	149
Woking (Horsell Vic.)	Rev. J. Back	5	1 0	122 T	17·82	136
D Cobham (Leigh Hill House)	J. Macaulay, Esq.	5	2 10	...	17·01	121
D Caterham Junction (Tudor Cot.)	Baldwin Latham Esq CE	5	1 0	216 ⅄	21·35	133
†Weybridge Heath (Bartropps)	Mrs. Harrison	8	0 6	150 ⅄	18·16	...
D ,, (Oakfield)	H. Yool, Esq.	5	1 0	107 ⅄	18·27	138
,, (Church Street) M	,, ,, ,,	5	1 0	55 ⅄	18·19	...
Walton-on-Thames (Hersham)	G. Dines, Esq.	8	4 0	55 ⅄	17·63	...
Addington	Baldwin Latham Esq CE	5	1 0	268 ⅄	21·08	...
†Sutton (Mulgrave Road)	W. Goode, Esq.	5	7 3	230 ⅄	18·64	134
D Croydon (Waddon House)	P. Crowley, Esq.	5	1 0	156 T	19·62	160
,, (Katharine Street)	G. Corden, Esq.	5	1 0	195	17·86	138
D† ,, (Nantwich House)	Baldwin Latham Esq CE	8	4 0	259 ⅄	19 31	165
D ,, (,, ,,)	,, ,, ,,	8	1 0	253 ⅄	19·77	168
D ,, (Brinstone Sew. Works)	,, ,, ,,	5	1 0	130 ⅄	18·87	138
D*† ,, (Addiscombe)	E. Mawley, Esq.	8	0 9	202 ⅄	19·69	151
*† ,, (,,) M	,, ,, ,,	8	0 9	202 ⅄	19·86	...
,, (,,) M	,, ,, ,,	8	10 0	211 ⅄	19·23	...
D† Beddington	S. Rostron, Esq.	5	1 0	102 T	18·36	153
D Chertsey (Long Cross)	C. H. Berners, Esq.	8	1 9	168 T	18·86	136
,, (Burley Orchard)	W. Herring, Esq.	5	1 0	47 T	17·70	...

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1884 inches.	Days on which ·01 more fell.
SURREY—(*con.*)							
Surbiton (Seething Wells)	G. Lott, Esq.	10	0	6	25	15·06	145
D East Molesey (Palace Road)	Mrs. Jenkyns	8	6	5	37	16·53	154
South Norwood (Cumberlow)	W. F. Stanley, Esq.	8	1	0	190 T	18·10	141
D Wimbledon	T. Devas, Esq.	12	3	0	157 T	16·80	154
D ,, (Sewage Works)	Baldwin Latham Esq CE	5	1	0	58 ⅄	16·06	136
D† Lower Norwood	W. Marriott, Esq.	8	1	0	185 T	19·05	163
D Border Lodge [Forest Hill]	J. Porter, Esq.	8	0	11	260 T	19·42	159
Egham (Cooper's Hill)	The Meteor. Council	8	1	1	280	19·11	153
D Richmond (Ormond Lodge)	J. F. Billett, Esq.	5	0	9	51	19·11	146
D Kew Observatory	The Kew Committee	11	1	9	19 ⅄	18·94	144
Brixton (Acre Lane)	The Meteor. Council	8	1	0	77 T	17·04	149
D Battersea Creek	Sir J. W. Bazalgette, CE	8	27	2	41 ⅄	15·97	129
D Vauxhall Cross	,, ,, ,, ,,	8	30	9	48 ⅄	15·85	135
KENT.							
Hawkhurst (Sandhurst Rectory)	Rev. G. Ridout	5	1	3	208 ⅄	23·85	145
D Dymchurch (New Hall)	H. D. Good, Esq., C.E.	8	1	0	12 ⅄	23·16	140
Tenterden (Summerhill)	Rev. A. Wilkin	12	1	0	149 ⅄	21·12	114
Benenden (East End)	J. Ellis Mace, Esq.	8	1	5	193 ⅄	25·51	...
,, *Snowdon*	,, ,, ,,	5	1	0	150 T	23·69	...
D Tenterden	,, ,, ,,	8	1	5	190 ⅄	24·22	168
,, *Snowdon*	,, ,, ,,	8	1	5	190 ⅄	23·87	...
,, (Ashbourne)	A. Pinyon, Esq.	5	2	8	45 T	22·90	...
D† Hythe	H. B. Mackeson, Esq.	8	0	6	12 T	22·99	157
Cranbrook (Swattenden)	R. Appach, Esq.	8	1	4	350 T	23·87	133
† ,, (Hartley)	G. Pile, Esq.	5	4	0	405 T	25·32	163
Hythe (Paddlesworth)	Mr. R. Dixon	8	1	0	608 ⅄	31·27	...
D Gowdhurst Vicarage	Rev. J. S. Clarke	5	1	1	419 T	20·57	142
D† Dover (Pencester Street)	H. J. Poulter, Esq.	5	1	6	32	23·84	141
D ,, (Kearsney Abbey)	Mr. C. Maxted	5	0	10	94 ⅄	27·51	146
Acrise	G. C. Woollett, Esq.	8	1	0	504 T	30·12	193
Tunbridge Wells	The Roy. Meteor. Society	5	1	0	500	23·42	149
,, ,, (Camden Park)	J. Weston, Esq.	5	0	9	424 ⅄	24·45	160
D Ashford (Bethersden)	W. H. Mold, Esq.	5	3	0	112 ⅄	23·03	160
D ,, (Beavor Green)	T. Nickalls, Esq.	5	1	0	155 T	25·50	174
,, (Kennington)	J. S. Burra, Esq.	8	...		...	24·44	...
D Tunbridge Wells (Etherton Hill)	E. W. Winton, Esq.	5	1	5	276 ⅄	20·61	140
D ,, ,, (Pembury)	W. Brentnall, Esq. C.E.	8	1	8	181 ⅄	21·23	138
D Tunbridge (St. Mary's)	W. C. Punnett, Esq.	5	1	6	96 ⅄	21·49	139
,, (,, ,,) *Snowdon*	,, ,, ,,	5	1	0	96 ⅄	21·20	139
,, (Clare House)	J. Rock, Esq.	8	1	0	125 ⅄	22·68	...
Ashford (Eastwell Vicarage)	R. M. Mercer, Esq.	5	...		...	24·15	...
D ,, (Westwell)	Rev. H. H. D'Ombrain	5	1	0	293 ⅄	22·54	151
Lower Walmer	Mr. G. L. Hall	5	1	4	20	25·63	151
D† Maidstone (Hunton Court)	Mr. P. Goddard	8	0	6	80 T	18·93	145
Deal (Northbourne)	H. J. Hannam, Esq.	5	1	6	60	25·64	133
Maidstone (Tovil House)	Miss Green	8	1	0	80	20·62	144
D ,, (Lower Tovil)	L. Green, Esq.	5	1	0	30	19·32	153

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
KENT—(*con.*)						
D Maidstone (Hospital)	M. A. Adams, Esq.	5	...	200	19·58	143
Charing (Otterden)	Rev. W. A. Paxton	5	1 0	507 ⅄	23·94	...
†Sandwich (Walton House, Eastry)	Colonel Rae	5	2 10	55 T	20·32	...
Sheldwich	Rev. B. S. Malden	5	1 0	250 T	21·74	152
D†Selling (Harefield)	E. Neame, Esq.	5	2 6	217 T	22·78	171
D Canterbury (Burgate Street)	B. Rigden, Esq.	5	9 6	58 ⅄	20·83	150
D ,, (Old Tree, Hoath)	G. Rammell, Esq.	8	2 0	113 ⅄	17·99	106
†Seven Oaks (River Hill)	J. T. Rogers, Esq.	8	4 0	535 ⅄	22·26	130
D ,, (Clare Bank)	J. M. Clabon, Esq	5	4 0	540 T	24·00	166
D† ,, (Riverhead Vic.)	Rev. J. M. B. Murdoch	5	0 6	300 T	22·43	125
D Westerham (Betsom's Hill)	Baldwin Latham Esq CE	5	1 0	811 ⅄	25·37	162
Aylesford (Preston Hall)	Mr. A. Waterman	8	1 6	80	25·07	...
D Bicknor Rectory	Rev. W. G. Waterman	5	1 0	560 ?	22·65	151
D Wrotham (The Elms)	W. H. Cooper, Esq.	5	1 0	420 ?	25·36	169
Ospringe (Lorenden)	W. C. Stunt, Esq.	5	1 2	180 ?	21·97	121
Sittingbourne (Rodmersham)	R. M. Mercer, Esq.	5	1 0	140 ⅄	22·18	177
Faversham (Oare)	Rev. H. F. Woolrych	5	1 3	17 ?	18·70	159
D Farnborough (Leaves Green)	Baldwin Latham Esq CE	5	1 0	534 ⅄	22·09	121
D Keston	Miss Holland	6	0 6	420 T	20·50	165
,, Tower	G. Buchanan, Esq.	8	0 6	351 T	21·92	133
†Ramsgate (The Vale)	M. Jackson, Esq.	5	1 0	90 T	19·89	139
D Birchington	E. S. Lendon, Esq	5	1 0	70	21·63	133
D Hayes Common	A. Hill, Esq.	5	1 0	289 T	20·42	148
Chatham	The Meteor. Council	...	1 3	137	20·20	149
D Rochester (Knights Place)	J. Pye, Esq.	5	2 6	320	21·41	180
D Margate (Renfrew Villa)	T. Twyman, Esq.	5	1 0	50 T	20·72	161
D ,, (Apsley House)	J. Stokes, Esq.	5	1 0	84 L	20·34	148
Sheppey (Greenborough)	R. M. Mercer, Esq.	5	2 0	...	24·88	...
D Frindsbury (Manor Farm)	Mr. F. Baker	...	...	100	18·33	137
D Beckenham (West Wickham)	Baldwin Latham Esq CE	5	1 0	230 ⅄	19·21	163
Bickley (Highfield)	J. Batten, Esq.	5	1 2	285	19·99	...
Chislehurst	Col. Silver	5	1 5	...	18·13	118
D†Beckenham (Foxgrove)	Percy Bicknell, Esq.	5	0 5	142 ⅄	19·70	139
D† ,, (,,)	,, ,, ,,	5	4 0	145 ⅄	19·05	135
D Rochester (Abbot's Court, Hoo.)	Warwick Stunt, Esq.	5	1 6	40	18·61	134
D Forest Hill (Newfield House)	E. F. Behrens, Esq.	...	...	...	18·04	115
D Gravesend (Park Place)	G. M. Walker, Esq.	5	1 0	...	15·39	161
Rochester (Higham)	Rev. C. H. Fielding	5	0 9	90	16·84	110
D Eltham (Ellerslea, Southend)	Capt. M. S. Richardson	5	0 8	218 T	17·74	149
D† ,, Green	E. J. C. Smith, Esq.	5	1 0	80 T	17·84	171
,, ,,	,, ,, ,,	5	1 0	80 T	17·71	...
Rochester (Hoo St. Mary)	H. Pye, Junr., Esq.	5	5 6	146 T	16·66	148
D Lee (Blessington Road)	J. Grant, Esq., C.E.	10	4 9	49 ⅄	20·19	149
Blackheath	J. Glaisher, Esq., F.R.S.	8	0 5	150	17·22	135
Greenwich (Royal Observatory)	W. H. Christie, Esq. F.R.S	8	0 5	155 T	18·05	150
D Deptford (Pumping Station)	Sir J. W. Bazalgette, CE	10	1 3	18 ⅄	20·41	139
D Erith (Crossness)	,, ,, ,,	14	1 0	16 ⅄	14·83	146
D ,, (,,)	,, ,, ,,	14	1 0	24 ⅄	16·35	146
D ,, (,,)	,, ,, ,,	11	1 0	6 ⅄	18·44	146

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
WEST SUSSEX.							
Bognor (Lidsey Lodge)	H. Neale, Esq.	8	1	2	...	24·05	129
D Littlehampton (Surrey House)	G. Neame, Esq.	5	1	8	20 T	24·67	122
D† Worthing (Bedford Row)	W. J. Harris, Esq.	8	1	0	18 ⅄	23·51	126
,, (,, ,,) M	,, ,, ,,	5	1	0	18 ⅄	24·51	
D ,, (Broadwater Road)	C. Kelly, Esq., M.D.	5	1	0	25 ⅄	24·75	119
D Arundel (Yapton)	W. A. Hounsom, Esq.	5	1	0	24 ⅄	23·65	145
,, (,, Drove Farm)	,, ,, ,,	5	1	0	14 T	23·09	147
West Thorney	F. Padwick, Esq.	5	1	0	10	21·78	...
Chichester (Westgate Meadow)	Dr. Tyacke	8	0	6	40	23·31	...
D Arundel (Patching)	J. Drewitt, Esq.	5	1	0	180	25·17	135
D ,,	R. Holmes, Esq.	8	3	1	75	24·70	127
,, (Dale Park)	Mr. E. Sandford	5	1	0	316 ⅄	30·20	124
D† Steyning	Col. Ingram	5	1	0	80 T	29·00	104
Chichester (Eartham House)	Sir P. Milbanke, Bt.	3	4	6	230 ⅄	23·79	...
,, (West Dean)	Mr. G. Broomfield	5	1	6	190 T	29·53	131
,, (Singleton Rectory)	Rev. F. A. Bowles	5	1	0	240	29·11	...
† ,, (Chilgrove)	J. W. Woods, Esq.	5	0	6	284 T	26·42	...
D Midhurst (Cocking)	Rev. R. Drummond Ash	8	2	6	...	30·13	120
†Petworth Rectory	Rev. C. Holland	5	4	0	190 ⅄	26·65	115
†Horsham (Leonardslee)	Mr. Ford	5	1	6	273 T	24·28	...
Midhurst (Lynch)	E. Eames, Esq.	5	0	6	160 T	31·24	...
D Horsham (Albion Terrace)	R. Sheppard, Esq.	6	5	0	150 ⅄	21·30	127
,, (Compton's Lea)	T. W. Cowan, Esq.	5	4	0	253 T	23·39	136
EAST SUSSEX.							
Beachy Head M	Miss W. L. Hall	5	1	0	515 T	21·95	...
D† Eastbourne (The Gore)	,, ,, ,,	5	1	0	85 T	26·72	129
D ,, (Osborne House)	,, ,, ,,	5	4	0	15 B	28·08	147
D† ,, (Cemetery)	,, ,, ,,	5	4	0	160 ⅄	27·55	133
†Brighton (Kemptown)	Mr. A. Wyatt	5	0	7	82 T	23·35	126
† ,, (Old Steine)	Dr. Taaffe	5	1	0	35	26·36	159
† ,, (Blatchington Road)	Mr. J. Park	8	0	6	55 T	25·15	...
D† ,, (Buckingham Place)	F. E. Sawyer, Esq.	5	5	0	206 ⅄	22·56	160
† ,, (W.W. Goldstone Bottom)	J. Baker, Esq.	5	0	10	140 ⅄	25·69	...
D† ,, (,, Lewes Road)	Mr. W. Insell	5	3	8	105 T	26·08	150
St. Leonard's (Carisbrooke Road)	H. Colborne, Esq.	5	1	0	117 ⅄	25·87	153
D ,, (The Grove)	W. B. Young, Esq.	5	1	1	110 T	27·78	147
D† Hastings (The Hollies)	A. H. Wood, Esq. C.E.	8	3	6	110 ⅄	29·15	179
D ,, (Buckshole)	W. Andrews, Esq.	8	0	8	106	27·39	151
D Hailsham	Rev. F. Clyde Harvey	5	1	0	105	27·53	137
D† Falmer	R. R. Verrall, Esq.	5	1	6	312 ⅄	27·92	107
D Lewes (Iford)	A. Hillman, Esq.	5	1	0	33 T	25·87	149
† ,, (Glynde Place)	Mr. J. McLeod	5	5	6	49 T	26·15	154
,, (Castle Place)	J. G. Braden, Esq.	5	0	11	100 T	25·58	118
†Hastings (High Beech Hollington)	Col. Lewis	5	1	0	320 T	24·68	157
,, (The Firs, Ore)	C. M. Murray, Esq.	8	1	0	408 B	27·56	...
D Winchelsea	Mr. Budden	5	1	6	110 T	26·07	157
Warbleton Rectory	Rev. G. E. Haviland	5	1	1	182 ⅄	27·26	154

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above SeaLevel	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
EAST SUSSEX—(*con.*)						
Burgess Hill	W. H. Dines, Esq.	5	1 0	...	23·05	...
Newick (Ketches)	Capt.G.RuckKeene,RN	8	0 7	192 T	21·36	...
D Uckfield	C. L. Prince, Esq.	8	0 8	200 B	23·16	153
Rye (Peasmarsh Place)	Hon. R. Henley Eden	5	1 0	180	25·65	...
D† Hayward's Heath Asylum	Rev. T. E. Crallan	5	1 0	281	23·82	163
D Maresfield (Fletching)	W.J.Treutler,Esq.,M.D.	5	1 0	140	25·72	152
D† ,, (Forest Lodge)	Capt. W. Noble	8	1 2	247 ⅄	26·16	181
D Cuckfield (Borde Hill House)	Mr. R. Inglis	5	3 0	270 B	24·05	148
D† Crowborough (The Observatory).	C. L. Prince, Esq.	8	0 8	777 ⅄	28·16	136
D Ticehurst	Mr. J. G. Webb	8	4 9	423 ⅄	27·18	168
D Wadhurst (Lower CousleyWood)	F. Wilkin, Esq	5	1 0	416 ⅄	23·60	148
Lamberhurst (Scotney Castle)	E. Hussey, Esq	5	4 3	202 T	21·85	...
D Frant (Myrtle Villa)	Miss Appellina Scott	5	1 0	500 T	25·89	118
,, (Eridge Castle)	Mr. J. Rust	6	2 0	400	27·00	...
D Withyham (Leyswood)	Mr. T. Moorhouse	8	1 4	420	26·82	143
Worth Rectory	Rev. G. W. Banks	5	4 6	309 ⅄	25·01	147
East Grinstead	W.V.K.Stenning, Esq.	5	1 3	356 ⅄	24·61	138
,, ,, (The Hermitage)	H. Padwick, Esq.	8	0 10	350 T	25·15	118
HAMPSHIRE.						
ISLE OF WIGHT.						
D† St. Lawrence	Rev. C. Malden	5	1 0	75 ⅄	25·01	149
Ventnor (Consumption Hospital)	Mr. H. Sagar	5	1 0	75 T	24·91	139
Sandown (Belgrave House) *old g.*	W. E. Green, Esq	5	1 0	105	26·50	121
D ,, (,, ,,) *new g.*	,, ,,	5	1 0	105	26·61	121
D Newport (Lugley Ho.)	Rev. E. W. Watts	5	1 0	...	26·98	140
Ryde (Thornbrough)	Col. Clarke	5	1 0	143 T	27·42	153
D ,,	F. Newman, Esq.	8	1 0	83	25·16	145
,,	Mr. T. S. Flower	12	7 6	17 T	24·34	115
D† Osborne (Newbarn Cottage)	J. R. Mann, Esq.	8	0 8	172 ⅄	24·26	147
D West Cowes (Holmwood)	C. T. Maw, Esq.	8	1 0	30	25·12	156
Hurst Castle	The Meteor. Council	8	0 11	9	24·65	166
D Bournemouth (Tregew)	AdlSirB.J.SulivanKCB	5	1 0	134	26·21	127
Christchurch (South Bourne)	Dr. Compton	5	1 0	91	24·71	146
D ,, (Mudeford)	F. H. D. Eyre, Esq.	5	0 3	15 L	24·48	171
,, School	C. I. Evans, Esq.	6	4 6	15 ⅄	25·91	193
D ,, (Kenilworth)	J. H. Bridgford, Esq.	5	1 2	100 ?	22·09	119
Portsmouth	TheRoy.Meteor.Society	5	1 0	20	21·58	162
D ,, (Closewood, Cosham)	O. Philpott, Esq.	5	0 9	125 T	22·55	141
D Emsworth (Redlands)	F. Jacomb Hood, Esq.	5	1 0	90 T	21·91	143
D Southampton (Cadland)	J. Laurie, Esq.	8	4 6	52 T	27·56	176
D ,, (Netley)	ProfF.deChaumontFRS	8	0 5	37 ⅄	25·48	133
,, (Eling House)	W. C. Spooner,Esq.	5	1 2	20	26·59	...
,, (Ordnance Surv. Off.)	Col. Stotherd, R.E.	5	1 0	79 ⅄	24·83	148
St. Catherines (Horndean)	Miss Barnes	8	1 7	400 T	26·86	167

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height above Ground.	Height above Sea Level	Depth of Rain. 1884	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
HAMPSHIRE—(*con.*)						
D Southampton (Westend)	C. Purrott, Esq.	5	1 6	244 T	26·51	159
D* ,, (Highfield) *Snowdon*	Rev. H. Garrett	5	1 0	130 ⊼	25·57	187
,, (,,) M	,, ,, ,,	5	1 0	130 ⊼	25·93	...
D† ,, (Red Lodge)	R. C. Hankinson, Esq.	5	0 6	206 T	24·02	160
,, (,,) M	,, ,, ,,	5	4 0	200 T	25·85	...
D Fordingbridge	T. Westlake, Esq.	8	1 0	135 T	27·86	143
Bishops Waltham (Swanmore House)	W. H. Myers, Esq.	8	1 0	390 T	27·41	135
D Droxford Rectory	Rev. S. Bridge	5	0 8	180	28·00	153
Fordingbridge (Wood Green)	H. Hinxman, Esq.	5	1 2	140 ⊼	27·67	...
D Petersfield (Castle House)	A. Stowe, Esq.	5	1 0	216 T	29·00	124
,, (Liss Place)	G. E. Coryton, Esq.	7	0 7	250 ⊼	30·43	...
D Alresford (Cheriton Rectory)	Rev. A. Orr	5	2 0	240	26·32	144
D ,, (Ovington)	Rev. W. H. B. Stocker	5	5 1	225 T	25·10	168
D Alton (East Tisted Rectory)	Rev. F. Howlett	5	1 1	420 ⊼	28·41	149
D Winchester (Harestock)	Col. Knight	5	1 0	302 ⊼	24·28	149
Alresford (Swarraton Rectory)	Rev. W. L. W. Eyre	5	1 0	310 ⊼	24·74	137
Alton (East Worldham)	Rev. Dr. Fell	5	1 6	499 ⊼	24·08	...
D† ,, (Ashdell)	F. Crowley, Esq.	8	3 6	433 ⊼	28·28	150
,, (Eagles Nest)	,, ,,	5	52 4	505	17·46	...
Micheldever (Northbrook)	J. A. Caird, Esq.	5	1 1	270 T	26·69	...
Andover (Red Rice)	Mr. C. W. Learman	5	0 11	277 T	25·04	129
Whitchurch (Long Parish)	C. Durnford, Esq.	...	...	...	23·76	...
,, (North Litchfield)	T. W. Styring, Esq.	5	0 10	...	25·89	110
Andover (The Knoll)	G. H. Westbury, Esq.	6	0 10	...	22·98	137
D Crondall (Warren Corner)	G. Wilkin, Esq.	5	1 3	575 ⊼	23·38	155
D Odiham Priory	Rt. Hon. G. S. Booth, M.P	5	4 4	...	23·70	129
Dogmersfield Park	Sir H. B. Mildmay, Bt.	5	2 6	...	21·47	...
D Basingstoke (Chapel Hill)	G. Stephens, Esq.	5	1 0	328 T	25·67	172
†Rotherwick (Tylney Hall)	C. E. Harris, Esq.	5	0 8	330 T	21·50	...
D†Basingstoke (Sherborne St. John)	Rev. D. W. Chute	5	1 3	276 T	25·46	161
Kingsclere (Ramsdale)	Miss A. F. Fuller	5	1 0	341 ⊼	24·22	167
Hartley Grange	W. Walkinshaw, Esq.	5	1 0	220 ⊼	21·07	...
,, Wespall	Rev. J. C. Keate	8	0 9	233 ⊼	21·15	...
D Blackwater (Hurstleigh)	Miss Gibson	5	1 0	220 T	21·10	158
D†Strathfield Turgiss	Rev. C. H. Griffith	5	3 0	200 ⊼	20·71	136
†Strathfieldsaye	Mr. J. Bell	8	1 0	160 T	22·12	105
†Heckfield (Park Corner)	J. Martineau, Esq.	5	1 3	258 T	20·24	116
,, Place	Mr. W. Wildsmith	8	1 0	262 T	19·05	...
BERKS.						
Newbury (Greenham)	Capt. J. Ward, R.N.	5	1 0	260 L	20·89	169
,, (Donnington Sq.)	W. J. Cowper, Esq.	5	3 6	...	21·70	168
D Wokingham (Wellington Coll.)	S. A. Saunder, Esq.	5	1 0	283 ⊼	21·30	167
Hungerford (Denford Park)	G. C. Cherry, Esq.	5	1 2	430 T	23·93	167
Reading (Englefield)	R. Benyon, Esq.	5	1 1	...	23·29	149
D† ,, (Russell Street)	Dr. Workman	5	1 0	154 ⊼	20·55	143
,, (East Thorpe)	A. Palmer, Esq.	5	3 0	157 ⊼	21·31	139
D Newbury (Welford Park)	Mr. C. Ross	5	1 0	335 ⊼	23·68	169
,, (,, ,,)	,, ,,	5	1 0	341 T	23·56	169

DIVISION II.—SOUTH EASTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	BERKS—(*con.*)						
D	Newbury (Weston)	R. Osmond, Esq.	5	1 6	...	22·42	126
D	Yattendon	A. Waterhouse, Esq.	5	1 0	440	21·43	149
	Lambourne (The Laburnums)	R. C. Mawley, Esq.	5	0 9	415 T	24·85	147
	Maidenhead (Kimbers Cottage)	Mr. J. Silver	8	1 2	92 ⅄	22·99	...
	,, (Lowood)	Major-Gen. Davies	8	1 0	...	19·57	134
D	,, (Cookham Vic.)	Rev. R. W. Rogers	5	1 3	90 T	21·26	149
	Shrivenham (Ashbury Vic.)	Rev. H. Miller	5	1 0	479 ⅄	25·00	...
	Wallingford Castle	J. Kirby Hedges, Esq.	5	0 9	175 ⅄	17·86	...
D†	Long Wittenham	Late Rev. J. Clutterbuck	12	1 6	165 ⅄	21·02	128
	,, ,,	Rev. F. C. Clutterbuck.	5	1 0	167 ⅄	21·27	129
	Faringdon (The Elms)	W. Dundas, Esq.	5	1 0	340 T	22·79	156

DIVISION III.—SOUTH MIDLAND COUNTIES.

	HERTS.							
D	Southgate (The Lawns)	H. P. Church, Esq.	5	0	6	240 T	22·14	155
	Rickmansworth (Moor Park)	Rev. C. W. Harvey	...	...		340	23·31	155
	,,	W. B. Butler, Esq.	5	1	0	...	22·42	...
	Bushey Station	Mr. R. Savill	5	0	8	...	22·52	...
D†	Watford (Wansford House)	J. Hopkinson, Esq.	5	1	0	225 ⅄	22·35	152
D	,, (Watford House)	Dr. Brett	5	1	0	240	20·78	159
†	,, (Oaklands)	E. Harrison, Esq.	5	5	6	273 T	21·10	147
	Barnet (Gas Works)	*Registrar Gen. Ret.*	...	...		212	21·48	...
D	Cheshunt Old Nurseries	Messrs. Paul & Son	5	1	0	92 T	19·94	144
	,, College	Rev. Dr. Reynolds	5	1	1	90	20·57	...
D	Broxbourne	G. J. Newbery, Esq.	5	1	0	...	20·40	173
†	St. Albans (Gorhambury)	Mr. J. Thompson	6	2	6	425	23·59	127
D	Hemel Hempstead (Nash Mills)	Messrs. J Dickinson & Co.	12	3	9	237 T	22·52	130
	Gt. Berkhampstead (High Street)	W. Squire, Esq.	8	1	5	370 B	23·44	143
D	,, ,, (Lower Mill)	R. A. Norris, Esq.	5	1	0	334	25·12	119
D	,, ,, (Great Gaddesden)	Rev. W. Tyrwhitt Drake	8	1	0	426 ⅄	21·12	145
D	Hertford (Haileybury College)	Rev. J. Ll. Dove	5	1	6	388 T	19·04	130
	,, (Bayfordbury)	W. C. Baker, Esq.	8	0	4	250	18·59	132
D	,,	J. Woodhouse, Esq.	8	0	2	...	19·37	145
D	Tring Vicarage	Rev. W. Quennell	5	1	0	442 T	24·82	156
D	,, (Cowroast)	H. Thomas, Esq., C.E.	10	4	2	345 L	23·75	119
	Harpenden (Rothamstead)	Messrs. Lawes & Gilbert	5	0	9	420 T	23·02	147
	,, (,,)	,, ,, ,,	8	0	9	420 T	22·43	141
	,, (,,)	,, ,, ,,	72x87	0	9	420 T	23·60	156
D	Ware	J. Francis, Esq., C.E.	12	3	0	114 T	18·10	138
	,, (Fanham's Hall)	Miss Joyce Croft	5	1	0	253 T	17·94	...
D	Welwyn Rectory	Rev. C. L. Wingfield	5	0	4	228 T	21·16	158
D	Kensworth [Dunstable]	Miss Jones	5	1	5	630 B	22·17	134
D	Ware (Much Hadham)	T. W. Mott, Esq.	5	1	0	222 B	19·48	139
D	Welwyn (Datchworth Rectory)	Rev. J. Wardale	6	1	0	386 T	19·40	132
	Stevenage (Knebworth Rectory)	Rev. F. G. Jenyns	5	1	0	391 ⅄	23·03	136
D	Bennington Lodge	Rev. Dr. Parker	5	1	0	408 ⅄	20·06	151

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which 1 or more fell.
			ft. in.	feet.	inches.	
HERTS—(*con.*)						
D† Hitchin	W. Lucas, Esq.	5	2 1	238 ⊼	20·75	148
,, (High Down)	J. Pollard, Esq.	5	1 1	422 ⊼	19·63	143
D Buntingford (Throcking Rectory)	Rev. C. W. Harvey	5	1 0	484 T	18·39	137
D Stevenage (Weston Manor)	M. R. Pryor, Esq.	5	0 7	480 T	21·13	157
D Royston (Therfield Rectory)	Rev. J. G. Hale	5	4 3	500 ?	18·56	131
D† ,,	H. Wortham, Esq.	8	0 6	269 ⊼	16·68	120
BUCKINGHAMSHIRE.						
D Slough (Langley)	R. H. Major, Esq.	8	0 10	85 T	19·14	138
,, (,, Field) .. M	,, ,, ,,	5	0 10	85 T	18·82	...
,, (Upton Park)	G. Bentley, Esq.	5	3 0	94 ⊼	20·65	140
Greenlands [Henley-on-Thames]	Rt Hn. W. H. Smith M.P	8	1 0	116	23·92	142
High Wycombe	H. S. Wheeler, Esq.	8	0 9	253 ⊼	20·23	...
Brill	Dr. W. J. Bond	5	0 5	...	19·66	125
Aylesbury (Serena Terrace)	J. Copcutt, Esq.	12	1 0	280 T	21·25	...
D† Winslow (Addington Manor)	E. Hubbard, Esq.	8	1 0	309 ⊼	19·11	157
D† Buckingham (Adstock)	J. E. S. Weston, Esq.	5	0 9	350 T	17·88	145
D Stony Stratford (Thornton)	Mr. W. Sturdy	5	1 6	...	18·75	134
Woburn Sands (Sandymount)	C. P. Stuart, Esq.	5	1 6	...	21·85	161
D Newport Pagnell	R. Littleboy, Esq.	5	2 0	...	18·69	125
Olney (Filgrave Rectory)	Rev. J. Tarver	8	0 8	285	20·10	...
OXFORD.						
Whitchurch Rectory	Rev. J. Slatter	10	1 0	150 ⊼	20·36	142
Henley-on-Thames (Greys)	Rev. N. Pinder	5	1 8	370 T	22·55	...
D ,, ,, (Assenton)	Mr. J. Ratty	5	1 0	281	24·95	151
D ,, ,, (Stonor Park)	Rt. Hon. Lord Camoys	5	1 0	400 T	25·50	146
Burcote [Abingdon]	H. J. Hannam, Esq.	5	1 3	168	19·75	145
Thame (Aston Rowant)	T. Taylor, Esq.	8	1 0	395 B	21·66	...
D Oxford (Toot Baldon Vic.)	Rev. J. C. Ross	5	1 0	265	18·82	145
D† ,, (Mag. Coll. Laboratory	E. Chapman, Esq.	5	1 0	186 ⊼	19·49	157
,, (,, ,, ,,)	,, ,, ,,	5	33 11	223 ⊼	15·36	...
,, (Radcliffe Observatory)	E. J. Stone, Esq., F.R.S.	8	1 8	210	18·88	147
D ,, (,, ,,)	,, ,, ,,	11	2 4	210 ⊼	18·92	125
,, (,, ,,)	,, ,, ,,	10	22 0	230	18·56	132
,, (,, ,,)	,, ,, ,,	10	112 0	320 ⊼	12·53	154
D ,, (Norham Road)	Rev. C. B. Mount	9	1 0	220 ?	20·05	138
Stanton St. John's	Mrs. Thomson	5	1 0	399 ⊼	19·95	155
,, ,, ,, (Woodperry)	J. Thomson, Esq.	6	1 0	399	21·70	163
Witney (Ringwood Farm)	Mr. J. W. Abraham	5	5 0	...	23·78	151
D Bicester (Middleton Park)	Mr. B. Hope	5	2 6	390	20·29	151
* ,, (Stratton Audley Park)	G. Glen, Esq.	5	2 5	381 ⊼	16·80	136
Steeple Aston	B. S. Ogle, Esq.	5	0 3	400 T	21·47	124
,, ,,	Capt. Bradshaw, RN, CB.	8	1 0	400	21·49	171
D Banbury (Bloxham Grove)	Rev. G. Warriner	8	3 10	387 ⊼	21·89	151
D ,, (Cotefield, Bodicote)	T. E. Cobb, Esq.	8	2 0	383 ⊼	21·18	159
D ,, (Swalcliffe Park)	G. H. Norris, Esq.	5	1 0	522 T	23·91	161

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	OXFORD—(*con.*)						
D†	Banbury (High Street)	T. Beesley, Esq.	6	7 0	330 ⅄	20·74	154
D	,, (Wroxton)	A. R. Tawney, Esq.	5	3 0	490 ⅄	22·66	168
	NORTHAMPTON.						
	Brackley	Mr. E. Durran	8	6 10	400 T	22·69	112
D	Grimsbury [Banbury]	L. Gunn, Esq.	..	1 0	...	20·32	138
	Thorpe Mandeville [Banbury]	Mr. S. Baines	5	1 0	530	20·40	139
D	Towcester (Whittlebury)	W. S. Miller, Esq.	5	1 2	...	20·46	147
D	,,	P. Phipps, Esq., M.P.	5	1 0	...	18·00	139
	,, (Easton Neston)	Mr. E. Slarke	8	1 0	340 T	19·24	142
D	Litchborough	E. Grant, Esq.	5	1 1	...	21·06	169
D	Daventry (Fawsley)	Lady Knightley	5	1 0	477 B	18·04	154
D	Castle Ashby	R. G. Scriven, Esq.	5	1 0	265 T	20·28	143
D	Northampton (Little Houghton)	Mr. J. Brawn	5	2 4	...	18·39	146
D	,, (The Holly's)	Alderman Macquire	8	1 6	232	19·35	143
D	,, (Hazlewood Road)	H. Terry, Esq.	5	5 0	253	17·82	126
D	,, (Gold Street)	Mr. S. Law	5	6 6	230 ⅄	16·86	142
D	,, (Sedgebrooke)	C. A. Markham, Esq.	5	1 0	311 ⅄	19·07	165
D	,, (Althorp House)	C. S. Groom, Esq.	8	3 10	310 ⅄	20·59	158
D	,, (Chapel Brampton)	E. Dowdall, Esq.	5	3 0	...	19·27	142
D	,, (Holdenby House)	Mr. J. Gregory	5	1 0	437 ⅄	22·38	155
D	Wellingborough (Swanspool)	N. P. Sharman, Esq.	5	0 2	...	19·21	154
D	,,	E. Sharman, Esq.	5	0 2	...	19·97	165
	Brixworth	Rev. J. F. Halford	5	1 0	400 ⅄	19·29	...
D	Thrapstone (Hargrave)	J. L. Baker, Esq.	5	1 0	219 ⅄	19·39	117
D	Kettering	J. Wallis, Esq.	8	1 3	300 B	20·09	142
	Rothwell	J. More, Esq., M.D.	12	1 2	300	15·31	127
	Oundle (Pilton Rectory)	Rev. F. G. Hodgson	5	1 0	...	18·05	...
D	,, (Vine Cottage)	Mr. S. P. Holloway	5	1 0	105	15·87	143
D	Rockingham Castle	Mr. H. Watt	5	3 0	400 L	20·43	107
D	Peterborough (Springfield Ho.)	J. Whitwell, Esq.	8	2 6	50 L	16·58	124
D	Easton [Stamford]	C. Day, Esq.	5	1 0	278 T	18·22	154
D	Maxey Vic. [Market Deeping]	Rev. W. D. Sweeting	5	1 0	60 ?	16·47	159
	,, ,, [,, ,,]M	,, ,, ,	5	1 0	60 ?	16·14	...
	HUNTS.						
D	St. Neots (Tetworth Hall)	Mrs. Kaye	5	0 8	114 T	18·31	136
D	,, (Waresley Vicarage)	Rev. W. M. H. Elwyn	8	1 0	193 ⅄	16·92	129
	Huntingdon	Mrs. C. Margetts	5	0 4	52 T	17·50	125
D	Alconbury	Rev. R. Conway	5	1 0	...	17·20	120
	Somersham	H. F. Fryer, Esq.	5	1 0	...	16·19	...
	Wistow	Rev. T. Woodruff	5	1 3	...	16·03	...
	Whittlesea Mere	R. Lunn, Esq.	8	1 0	...	16·81	143
	BEDFORD.						
	Luton	W. H. Leete, Esq.	5	1 0	344 T	19·58	131
	Ampthill (Silsoe)	H. Trethewy, Esq.	5	1 0	214 T	18·57	153
	,, (Wrest Park)	Mr. G. Ford	5	1 1	...	18·41	...

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
BEDFORD—(*con.*)						
D†Aspley Guise (Oaklands)	E. E. Dymond, Esq.	5	1 1	433 T	18·65	155
D Stotfold [Baldock]	Dr. Swaine	5	0 9	220	19·15	147
Ampthill	Mr. J. Brown	5	1 0	313 T	20·42	135
D Woburn (Hulcote Rectory)	Rev. B. Chernocke Smith	5	1 0	310	19·56	129
Ampthill (Lidlington Vic.)	Rev. F. Veasey	...	...	...	18·80	...
D ,, (Haynes Vicarage)	Rev. A. Osborn	5	0 9	323 T	18·41	132
Biggleswade (Old Warden)	Mr. G. R. Allis	8	1 2	...	16·74	108
,,	C. T. Newbery, Esq.	5	28 0	...	17·98	...
D Potton (Wrestlingworth)	H. J. King, Esq.	5	1 0	...	16·96	150
Cardington	Mr. J. McLaren	8	0 0	106	17·82	...
D ,, (*Staff gauge*)	,, ,,	12	3 6	109	16·89	141
D Sandy Rectory	Rev. J. Richardson	5	0 7	...	17·76	118
D ,, (The Lodge)	Rt. Hn. A. W. Peel, M.P.	5	1 0	...	17·60	130
Bedford	D. Robie, Esq.	5	0 4	115 T	17·04	124
,, (Clapham Park)	J. Howard, Esq., M.P.	8	1 0	220 ⅄	17·49	142
Tempsford Hall	Col. W. Stuart	5	0 9	80 T	17·40	147
Bedford (Milton Ernest)	F. Newbery, Esq.	5	5 0	130 ?	17·46	116
CAMBRIDGE.						
D†Odsey Grange [Royston]	H. G. Fordham, Esq.	5	1 0	263 ⅄	16·15	143
D ,, ,, [,,]	,, ,,	5	1 0	263 ⅄	16·54	139
D†Guilden Morden [,,]	J. G. Johnson, Esq.	5	1 2	106 ⅄	15·67	138
D Pampisford Hall	Mr. Morley	5	1 0	113 ⅄	16·17	169
,, ,, (The Cottage)	,, ,,	5	1 0	60	17·57	...
D Granchester Mill	J. Nutter, Esq.	5	5 0	31 ⅄	17·61	155
D Cambridge (Fulbourn Asylum)	G. E. Crallan, Esq.	5	1 0	68 ⅄	18·95	119
D ,, (W. W. Cherryhinton)	W. W. Gray, Esq., C.E.	5	1 0	35 ⅄	15·82	145
D ,, (Beech House)	J. Nutter, Esq.	8	4 0	40 ⅄	15·49	143
D ,, (Sidney Street)	Mr. W. E. Pain	8	60 0	92 ⅄	14·01	153
D ,, (Trinity College)	J. W. Glaisher, Esq. F.R.S	8	0 8	40	16·09	145
Hardwicke	Rev. J. S. Brown	5	0 7	...	18·22	...
D†Cambridge Observatory	Professor Adams, F.R.S.	5	1 0	84 ⅄	18·18	147
,, ,,	,, ,, ,,	8	1 0	84 ⅄	17·92	147
Quy Hall	Mrs. Francis	5	0 5	...	16·63	160
D Papworth Hall	Rev. E. Cheere	5	1 0	127	17·46	121
D Ely (Stretham)	Mr. J. Housley	9	4 9	13 ⅄	15·47	144
D ,, (,, Ferry)	Mr. C. Wright, Junr.	8	5 0	...	15·98	141
D ,, (Littleport Vicarage)	Rev. Canon Hopkins	5	1 0	50 ?	18·14	144
D Chatteris (Aylesby House)	A. A. Ruston, Esq.	8	0 6	...	17·18	140
D ,, (The Priory)	H. F. Fryer, Esq.	5	0 7	45	17·86	136
,, (Slade Farm)	Mr. T. Triplow	8	13 0	44 ⅄	15·90	...
,, (Horseway Lock)	R. Lunn, Esq.	8	1 0	...	12·01	122
D March	R. Dawbarn, Jun., Esq.	5	1 0	...	17·14	114
,,	R. Lunn, Esq.	...	...	...	16·68	132
,,	A. Grounds, Esq.	...	2 0	...	17·95	...
Stanground Sluice	R. Lunn, Esq.	8	1 0	..	14·24	...
* March (Stags Holt)	W. C. Little, Esq.	5	1 0	15 ?	18·67	...
Upwell (Marmont Priory Lock)	R. Lunn, Esq.	8	1 0	...	17·05	151

DIVISION III.—SOUTH MIDLAND COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge				Depth of Rain.	Days on which ·01 or more fell.
		Diameter	Height Above Ground		Height Above Sea Level	1884	
			ft.	in.	feet.	inches.	
CAMBRIDGE—(*con.*)							
D Upwell (Euximoor House)	H. West, Esq.	5	0	8	15 ?	17·65	128
Thorney (Wryde House)	S. Egar, Esq.	9	2	3	12 L	16·47	120
Wisbech (Coldham Hall, Elm)	H. J. Little, Esq.	5	0	8	15	18·03	137
D ,, (Bank House)	A. Peckover, Esq.	8	0	8	6	20·56	145
† ,, (Observatory)	Mr. W. J. D. Ward	8	0	6	10 T ?	19·47	109

DIVISION IV.—EASTERN COUNTIES.

ESSEX.							
D Canning Town [London]	D. Radford Sharpe, Esq.	6	14	6	23 ⅄	14·96	127
D Shoeburyness	The Asst. Super. Expts.	8	7	3	18	14·72	143
D† Southend	G. Lingwood, Esq.	8	1	0	112 ⅄	16·56	131
Romford (North Ockendon Rect.)	Rev. R. T. Crawley	5	1	6	100 T	15·39	137
D Barking (Little Ilford)	Rev. A. Shadwell	10	1	0	30 T	17·38	137
,, (Great Gearies, Ilford)	Mr. J. Douglas	5	1	0	120	17·76	158
Romford (Normanhurst)	E. C. Allam, Esq., C.E.	8	2	0	93 ⅄	15·67	...
Walthamstow (Prospct Hill Ldge)	J. E. Goodchild, Esq.	5	1	2	140 T	20·34	141
D Woodford (The Harts)	Miss Spicer	5	3	0	203 T	21·29	...
,, (Haggan Lane)	W. B. Bryan, Esq., C.E.	8	1	0	176	17·91	116
D Billericay (Bellhouse)	Mr. J. Holmes	5	1	0	75	20·85	112
Brentwood (Sawyer's Hall Farm)	Rogers Field, Esq., C.E.	5	1	0	270 T	18·60	...
Maldon (Norton Hall)	C. Clarke, Esq.	5	2	6	130 T	17·47	116
Waltham Abbey (Gunpdr. Factry)	The Superintendent	8	4	0	82 L	17·51	121
Epping (The Hemnalls)	J. Nicholl, Esq.	8	0	8	345	25·20	141
Bradwell-on-Sea (Down Hall)	R. Page, Esq.	5	1	0	20	17·67	129
D ,, ,,	J. C. Chillingworth, Esq.	5	1	1	...	16·04	106
Chelmsford (Great Baddow)	H. Corder, Esq.	5	0	10	...	17·93	...
,, (,, ,, Vineyards)	Rev. A. W. Bullen	5	1	0	...	18·04	143
D ,, (Writtle)	E. Rosling, Esq.	5	1	0	140 T	16·74	148
,, (High Street)	F. Chancellor, Esq.	8	1	0	86 ⅄	17·58	130
,, (Roxwell)	R. W. Christy, Esq.	5	1	0	177 T	17·33	130
D Harlow (Moor Hall)	Mr. Huntley	8	1	6	273 ⅄	18·25	144
D ,, (Sheering)	Rev. Canon Hill	5	1	0	214 ⅄	18·23	166
D Clacton-on-Sea	W. Maine, Esq.	5	1	0	58	18·52	...
Witham (Little Braxted Hall)	J. Taber, Esq.	5	1	0	50	17·45	149
,, (Rivenhall)	Rev. F. B. H. Bridges	5	1	0	138 T	17·85	...
Great Bentley (Wick, St. Osyth)	A. Harwood, Esq.	5	2	0	91 T	17·75	...
D Dunmow (High Roding)	Rev. E. Maxwell	5	1	0	252 T	17·05	151
,, (New Street)	B. H. Warner, Esq.	12	1	6	250	17·00	...
Great Bentley (The Lodge)	Capt. W. Delf	6	0	6	150	16·76	...
Braintree (Bocking)	S. Tabor, Esq.	4	3	0	200 T	17·58	105
,, (,, Place)	S. Courtauld, Esq.	5	2	0	212 ⅄	18·12	153
Earls Colne (Chalkney House)	H. F. Hills, Esq.	5	1	0	180 T	17·29	130
D Dedham (Lower Park)	W. H. Penrose, Esq.	8	1	0	49 ⅄	17·67	142
Saffron Walden (Newport)	Rev. G. F. Tamplin	5	4	0	180 T	16·40	129
D ,, ,,	J. G. Bellingham, Esq.	5	1	0	179 ⅄	15·72	154
Hedingham (Toppesfield)	D. Radford Sharpe, Esq.	...	...		...	16·67	...

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above SeaLevel	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	SUFFOLK.						
D	Nayland (Tendring Hall)	Mr. G. L. Rushmore	8	0 8	135 ⅄	17·19	...
	Stutton (Alton Hall)	J. South, Esq	5	0 9	...	18·07	...
D	Ipswich (Orwell Park)	Mr. J. Wallis	8	1 0	60 ⅄	21·20	164
D	,, (Belstead Hall)	A. Harwood, Esq.	8	9 0	120 ⅄	16·83	121
	,, (,, ,,)	,, ,, ,,	5	8 0	120 ⅄	16·83	...
	,, (Bishop's Hill)	G. A. Biddell, Esq., C.E.	5	1 0	104 ⅄	18·58	...
	,, (Playford)	M. Biddell, Esq.	5	2 0	...	18·33	...
	Lavenham Hall	W. Biddell, Esq., M.P.	5	1 11	...	17·63	...
D	Woodbridge (Bank House)	S. Alexander, Esq.	5	1 0	...	21·84	136
D	,, (The Grange)	W. P. T. Phillips, Esq.	5	1 5	...	21·18	117
D	Rendlesham Hall	Rt Hon Lrd. Rendlesham	5	1 9	88 ⅄	20·69	140
D	Haverhill (Great Thurlow)	Mr. A. Boa	5	1 0	241 T	16·44	139
	Ash Bocking Vicarage	Rev. M. B. Cowell	5	7 3	231 T	17·67	105
	Stowmarket (Upland Hall)	A. Harwood, Esq.	5	12 0	...	16·32	...
D	,, (Wetherden Rec.)	Rev. C. J. Goodhart	8	0 6	185 ⅄	17·60	150
D	Bury St. Edmunds (Drinkstone Pk)	Mr. G. Palmer	8	1 2	220 T	17·13	135
	Framlingham (Mount Pleasant)	Mr. R. Whitehead	5	1 3	...	22·30	129
	Newmarket (Moulton Rectory)	Rev. W. J. Josling	4	1 0	140 ⅄	16·61	133
†	Bury St. Edmunds (Westley)	R. Burrell, Esq.	5	1 0	226 ⅄	18·34	...
D†	,, ,, (Barton Hall)	Mr. W. Allan	5	1 0	...	19·10	166
D	,, ,, (Hengrave)	Mr. W. Nichol	5	1 2	...	17·98	104
D†	,, ,, (Culford)	Mr. J. Smith	5	1 6	...	19·18	161
D	Ixworth (Walsham-le-Willows)	Miss M. C. Martineau	5	1 0	...	19·54	144
	Stradbroke Vicarage	Rev. Dr. Tate	5	2 2	...	20·13	...
	†Ixworth (Barningham)	W. Lingwood, Esq.	8	1 0	25 ?	18·15	...
D	Weybread Vic. [Harleston]	Rev. J. H. White	8	1 1	...	19·17	137
D	Beccles (Sotterley Hall)	Col. St. J. Barne, M.P.	5	0 9	...	23·92	169
D	,, (Ellough Rectory)	Rev. S. W. Earnshaw	5	1 1	103 ⅄	21·59	...
	†Lowestoft (Gisleham)	Rev. H. Jodrell	5	1 4	36 T	21·96	...
†	,, (Carlton Colville)	G. Edwards, Esq., C.E.	8	0 9	6 T	22·90	...
D	,, (Kirkley)	Mr. C. McMath	5	1 0	58 ⅄	22·69	116
D	,, (Bryn-y-Môr)	S. H. Miller, Esq.	5	1 0	86	22·32	164
	,, (,, ,,) ....M	,, ,, ,,	8	1 0	86	22·28	...
	,, (Somerleyton Rect.)	Rev. Canon Du Port	8	1 0	50	23·52	152
	NORFOLK.						
D	Diss	T. E. Amyot, Esq.	5	1 0	96	20·18	142
	,, (Thelveton)	T. Mann, Esq.	8	1 0	...	19·23	128
D	Harleston (Rushall Vicarage)	Rev. C. Gape	5	1 1	123 T	21·38	170
D†	Geldeston [Beccles]	E. T. Dowson, Esq.	5	1 0	38 ⅄	21·31	159
	,, [,,] ....M	,, ,, ,,	8	1 0	38 ⅄	21·42	...
D	,, [,,]	R. Dashwood, Esq.	5	1 0	49 B	21·72	147
	Ellingham [,,]	H. Youngman, Esq.	5	1 6	...	20·46	...
D	Long Stratton (Hapton)	Rev. Canon Du Port	...	...	...	20·56	...
D	Loddon (Bergh Apton)	Rev. T. F. Lloyd	8	2 5	...	19·97	131
	Mulbarton	Rev. Canon Du Port	...	...	...	19·10	...
	Watton	,, ,, ,,	...	...	...	18·91	...
D	Downham Market (W. Dereham)	Mr. C. Blanchfield	5	0 11	20	18·90	171

DIVISION IV.—EASTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground.	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORFOLK—(*con.*)						
D Stoke Ferry (Wereham)	Rev. Canon Du Port	...	...	66	17·70	148
Swaffham (Pickenham Hall)	E. A. Applewhaite Esq.	5	1 0	104 ⇈	20·38	160
Outwell Sluice	R. Lunn, Esq.	9	...	16	16·48	113
Yarmouth (Sailors' Home)	The Meteor. Council	8	4 0	12	24·48	187
D ,, (Dene Side)	W. H. Willis, Esq.	8	1 0	28 ⇈	26·30	180
,, (Halvergate Hall)	Rev. Canon Du Port	5	3 3	48 ⇈	20·60	...
D Norwich (Postwick)	Rev. Sir W. Vincent, Bt.	5	1 0	20 ?	20·52	131
D ,, (Carrow House)	J. J. Colman, Esq., M.P.	5	4 0	30	21·05	...
D† ,, (Thorpe High House)	W. Birkbeck, Esq.	5	1 0	137 ⇈	23·45	160
D ,, (,, Hamlet)	A. W. Preston, Esq.	5	5 0	...	20·88	162
,, (St. Catherine's Close)	Mrs. Evans	5	2 3	120	20·85	144
D ,, (Essex Street)	F. Dix, Esq.	9	2 6	85 ⇈	20·36	138
†Acle	Rev. R. W. Kennion	8	0 9	40	19·09	103
D*Swaffham (Grammar School)	C. J. Drury, Esq.	5	1 10	242 ⇈	20·84	156
D ,,	W. H. Plowright, Esq.	5	5 0	250	18·94	145
D†Mattishall	Rev. Canon Du Port	8	1 2	165 ⇈	19·75	161
D†Norwich (Honingham Hall)	Lady Bayning	5	0 6	110 ⇈	18·90	178
D ,, (Costessey)	H. Culley, Esq.	5	1 0	...	20·64	161
D Sprowston (Oak Lodge)	T. Cozens Hardy, Esq.	5	1 0	...	20·32	178
East Dereham	G. H. Cooper, Esq.	8	3 0	161	19·43	127
D ,, ,,	Rev. Canon Du Port	...	...	...	18·05	...
D Drayton	,, ,, ,,	5	1 2	...	19·46	142
D Swaffham (Dunham)	,, ,, ,,	5	1 1	320	23·72	171
Oby	,, ,, ,,	...	...	...	20·05	...
Salhouse	,, ,, ,,	...	...	...	21·69	...
St. Germans (Outlet Syphons)	R. Lunn, Esq.	8	...	...	17·11	110
D Terrington	J. T. Seccombe, Esq, M.D	5	1 0	15 ⇈	20·73	120
D Felthorpe	Major Bourchier	5	1 1	75	21·72	129
Cawston	Rev. T. H. Marsh	5	1 0	130 ⇈	22·98	173
Aylsham (Woodgate)	B. J. W. Purdy, Esq.	...	...	...	22·82	...
North Walsham (Worstead)	Mrs. Cooke	5	0 9	...	21·81	127
D ,, ,, (Dilham)	Rev. Canon Du Port	...	...	...	22·67	184
†Lynn (Hillington Rectory)	Rev. H. Ffolkes	8	1 0	89 ⇈	22·54	159
D† ,, (,, School)	,, ,,	5	3 6	94 ⇈	22·48	160
Fakenham (Fulmodeston)	Rev. Canon Du Port	...	...	...	24·10	...
North Walsham (Knapton)	,, ,, ,,	...	...	...	21·39	...
Cromer (Northrepps)	,, ,, ,,	...	...	...	25·69	...
Holt (Letheringsett Hall)	W. H. C. Hardy, Esq.	8	1 0	...	22·16	121
Cromer (Colne Lodge)	J. Cooper, Esq., M.D.	5	1 0	100	23·59	137
Holkham M	J. Davidson, Esq.	8	1 0	35	20·56	...
D ,,	,, ,,	12	4 0	39 ⇃	20·04	127
D Hunstanton Hall	Mr. Nisbet	11	3 8	60 ⇈	16·93	...
D Wells-next-the-Sea	H. R. Rump, Esq.	5	1 0	16 ⇈	20·98	164

DIVISION V.—SOUTH WESTERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell
			ft. in.	feet.	inches.	
WILTS.						
D Landford	J. R. Wigram, Esq. ...	5	1 10	165 ⅄	24·85	171
D DonheadSt.Andrew[Shaftesbury]	Rev. T. A. Preston ...	5	1 0	...	29·61	168
Broad Chalke	,, ,, ,, ...	8	0 8	315	25·79	161
D†Salisbury (Alderbury)	Rev. R. S. Hutchings...	5	0 8	263 ⅄	24·34	153
D† ,, (West Dean)	Rev. W. L. W. Eyre...	5	1 0	137 B	29·35	159
,, (Britford)	Rev. T. A. Preston ...	5	1 0	.	25·51	171
,, (Wilton House)	Mr. Challis	8	0 5	180 ⅄	27·16	159
D Mere	Rev. T. A. Preston ...	5	1 0	...	34·61	191
D ,, Down	,, ,, ,, ...	5	1 0	600?	32·49	198
D Hindon (Chicklade)	,, ,, ,, ...	5	0 11	...	34·27	195
D Winterslow	,, ,, ,, ...	5	1 0	...	23·69	151
D Maiden Bradley	Henley Eden, Esq.	8	0 10	630 ⅄	39·46	181
D Warminster (Rye Hill)	Rev. T. A. Preston ...	8	2 0	450	36·16	186
Salisbury Plain (Chitterne House)	R. Hayward, Esq.	11	4 0	380?	24·06	165
D Warminster	E. Cruse, Esq.	5	1 0	387 ⅄	30·29	187
,, (Downside)	W. J. Stent, Esq.	8	3 0	393	32·00	193
Ludgershall	Rev. W. H. Awdry ...	8	0 8	422 ⅄	24·22	158
D ,, (Everleigh)	Rev. T. A. Preston ..	5	1 2	590	26·59	176
D ,, (Collingbourne Kingston).	BaldwinLathamEsqCE	5	1 0	470 ⅄	26·73	177
D Market Lavington	Rev. T. A. Preston ...	5	1 0	...	23·30	184
,, ,, (Great Cheverell)	,, ,, ,, ...	5	1 1	..	25·93	149
D Trowbridge (Steeple Ashton Vic.)	Rev. A. O. Hartley ...	5	1 0	240 T	25·08	169
D ,, (Wingfield)	T. H. Clark, Esq.	5	1 0	150	27·52	154
D ,,	W. J. Mann, Esq.	5	1 1	140	25·88	169
D Pewsey	Mr. J. P. Robins	5	1 0	...	24·43	166
D Bradford	Rev. T. A. Preston ...	5	1 0	...	28·75	171
D ,,	,, ,,	5	1 0	...	28·45	170
Trowbridge (Holt)	The late Major Gritton.	5	1 2	120 T	26·80	177
Devizes (Southgate House)	B. H. Cunnington, Esq.	8	1 0	436 T	25·22	185
Alton Barnes	Rev. T. A. Preston ...	5	1 0	...	27·39	170
D Bishop's Cannings	Rev. C. W. Hony	5	1 0	446 ⅄	25·28	176
D Buttermere	Rev. T. A. Preston ...	5	4 9	...	26·63	207
D Burbage (Wolfhall)	,, ,, ,, ...	8	1 0	528	27·67	139
D Shalbourne	,, ,, ,, ...	5	1 0	...	26·31	155
D Durley	,, ,, ,, ...	5	4 0	600?	24·28	180
D Devizes (Shepherd's Shore)	,, ,, ,, ...	5	1 6	...	26·53	182
D Chippenham (Lacock)	Miss Awdry	5	0 11	250	26·82	187
D†Marlborough (The Green)	Rev. T. A. Preston....	5	1 0	472 ⅄	27·12	178
,, (,,) ....M	,, ,, ,, ...	5	1 0	472 ⅄	26·40	...
D ,, (Mildenhall)	Rev. C. Soames	10	1 0	456	25·93	153
D Corsham	Rev. T. A. Preston.....	5	1 0	350?	28·48	176
D Calne (High Street)	Mr. H. Wilkins, Junr.	5	3 6	244	26·80	176
D ,, (Compton Bassett)	Mr. J. Allen	8	1 0	400 T	24·28	182
D Ramsbury	Rev. T. A. Preston ...	5	1 0	411	25·21	172
D Ogbourne Maizy	,, ,, ,, ...	5	1 0	...	26·98	152
D Broad Hinton	Rev. J. A. Lloyd	5	3 0	630 T	23·69	164
D Wootton Bassett	Rev. T. A. Preston ...	5	1 0	...	25·59	172
D Swindon, New	J. H. Preece, Esq.	8	0 4	378	23·18	169

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WILTS—(*con.*)						
Swindon (Pen Hill)	H. Arkell, Esq.	5	0 10	400	23·15	149
D Malmesbury	Rev. T. A. Preston	...	1 0	...	28·02	165
D ,, (Charlton Park)	Rt. Hon. Earl of Suffolk	5	0 11	...	26·97	140
Thames' Head [Cirencester]	J.H.Taunton,Esq.,C.E.	8	4 0	350 ⅄	27·08	144
DORSET.						
Weymouth	The Roy. Meteor. Soc.	...	...	...	24·93	148
D ,, (Langton Herring)	Rev. C. H. Gosset	8	1 0	200 ?	27·19	166
D† ,, (Osmington Lodge)	Col. Hall	5	1 0	225 B	30·14	164
†Abbotsbury	Mr. A. Dight	5	3 6	150	28·33	...
D Wareham (Castle Gardens)	S. W. Bennett, Esq.	5	3 2	15	29·87	150
Little Bredy	Rev. R. R. Meadows	5	1 0	...	32·92	142
D*Westbourne [Bournemouth]	E. B. K. Welch, Esq.	5	1 0	137 T	27·69	165
D Poole	F. Styring, Esq.	5	1 0	6	27·18	158
D ,, (The Yarrells)	,, ,, ,,	5	1 0	40	26·87	131
D ,, (Parkstone)	R. H. Barnes, Esq.	5	1 0	210	28·85	195
D Bere Regis (Bloxworth)	Col. Cambridge	5	2 0	150 ?	28·42	...
D Beaminster Vicarage	Rev. Canon Codd	5	0 9	...	33·74	172
D Blandford (Whatcombe)	J.Mansel-Pleydell,Esq.	5	0 4	320 B	31·07	120
Cerne Abbas (Minterne Rectory)	Rev. H. Pix	5	2 0	566 T	37·51	170
D ,, ,, (Melbury)	Mr. T. C. Elliott	12	2 9	...	34·63	121
D Beaminster (Chedington)	Miss Creed	5	1 6	...	35·86	188
D*Wimborne Minster (Chalbury)	Rev. G. H. Billington	5	2 0	338 ⅄	28·74	161
D Shaftesbury	T. Ackland, Esq.	5	1 4	722 ⅄	32·32	186
D Gillingham	S. H. Stephens, Esq.	5	1 2	300	29·81	191
DEVON.						
Salcombe (Prawle Point)	The Meteor. Council	8	1 9	350	24·90	182
,, (The Molt)	J. Drew, Esq.	8	1 2	61 L	30·09	136
† Bolt Tail	G. Balkwill, Jun., Esq.	5	2 0	297	27·03	...
D Kingsbridge	W. H. Webb, Esq.	5	1 0	84	35·04	187
D† ,, (Ringmore)	BaldwinLathamEsq CE	5	1 0	...	30·49	164
D Dartmouth (Strete)	Dr. Madden	8	1 0	200 B	30·83	141
D Plymouth (Navigation School)	J Merrifield,Esq.LL.D.	8	9 2	75 ⅄	28·73	192
D*Devonport (Rowdens Res.)	H. Francis, Esq., C.E.	5	1 0	201 ⅄	31·92	217
Brixham (Lupton)	Mr. J. Gibson	5	1 6	220 T	32·46	139
Plympton (Hemerdon)	Rev. G. L. Woollcombe	5	1 0	360	30·33	...
D Totnes	T. H. Edmonds, Esq.	5	1 0	94 L	39·24	190
Paignton (Hollacombe)	J. Greenfield, Esq.	5	7 0	70 ?	30·09	179
D ,, (Madeira Cottage)	P. Symons, Esq.	5	6 0	20 T	28·45	163
†Dartmoor (Lee Moor)	W. L. Martin, Esq.	5	0 9	860 ⅄	53·53	...
Bere Ferrers	Rev. F. T. W. Wintle.	5	1 0	100	38·06	201
D†Torquay (Lamorna)	W.Pengelly,Esq.F.R.S	5	1 0	200 ⅄	30·60	177
,, (Rocombe House)	ThelateH.Hearder,Esq.	5	1 0	400 T	27·70	172
D* ,, (Castle College)	C. J. Harland, Esq.	5	1 0	167 ⅄	26·60	163
D† ,, (Babbacombe) *Snowdon*	E. E. Glyde, Esq.	5	1 0	294 ⅄	29·76	176
Buckfastleigh (Bossel Park)	J. Hamlyn, Esq.	5	2 0	150	54·69	145
D*Walkhampton (Lowery)	H. Francis, Esq., C.E	8	1 0	900	55·00	118

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
DEVON—(*con.*)						
Abbots Kerswell (Court Grange)	Mrs. Hare	5	1 0	130 B	32·07	112
D Ashburton (Holne Vicarage) ...	Rev. J. Gill.....	5	1 0	650 B	59·94	203
D† ,, (Druid House)	Fabyan Amery, Esq....	5	1 0	572 T	46·06	187
D ,. (Leusden Vicarage) ..	Rev. F. Gilbert White	5	5 0	850	46·68	183
D Kingsteignton (Teignbridge Ho.)	F. H. Plumptre, Esq...	5	1 0	27 ⅄	36·42	159
†Teignmouth (Lower Reservoir)...	W. C. Lake, Esq. M.D.	5	1 0	138 L	32 84	169
,, (Marine Villa)	W. B. Harris, Esq. ...	5	1 0	18	26·75	153
D ,, (Woodway)	G. W. Ormerod, Esq....	5	1 0	235	29·09	184
D†Tavistock (Public Library)	Mr. R. Westington ...	8	20 0	283 T	39·40	212
D ,, (Kelly College)	R. W. Taylor. Esq. ...	5	0 9	328	41·89	212
*† ,, (Mount Tavy)	H. Clark, Esq.	5	1 0	316 T	45·14	...
D†Ilsington (Middlecott House) ...	Alfred Lyon, Esq.	9	3 6	649 T	36·73	139
Ashburton (Widecombe Vic.).....	Rev. J. Williams	5	1 0	810	50·17	...
D ,, (Cator Court)	F. H. Firth, Esq.	5	0 6	1060 T	59·86	208
D Dawlish	Capt. Strangways, R.N.	5	1 0	120 B	30·08	184
†Milton Abbot (Endsleigh).....	Mr. W. Prout	5	0 8	180 ?	43·08	...
D†Bovey Tracey	J. Divett, Esq.	5	0 6	94 ⅄	37·36	181
D Budleigh Salterton...	R. Walker, Esq.	5	4 0	100	26·47	167
,, ,, (E. Budleigh)	R. H. Lipscomb, Esq...	5	1 0	70 ⅄	29·86	154
Starcross (Powderham Castle) ...	J. Drew, Esq	8	2 0	57 L	31·55	137
Coryton (Lew Down)	Mr. T. M. Symons	5	4 0	445	43·24	211
D Polapit Tamar [Launceston] ...	E. Coode, Esq.	5	2 9	...	33·27	229
†Sidmouth (Sidmount)	The Roy. Meteor. Society	5	1 0	149 ⅄	31·14	203
†Clyst St. George	Rev. H. T. Ellacombe..	5	1 3	76 T	32·10	...
D Rousdon [Lyme Regis].....	C. E. Peek, Esq.	5	1 0	524 ⅄	30·54	160
D†Clevelands [Lyme Regis]	E. L. Ames, Esq.	5	1 11	465 ⅄	33·76	174
Exeter (St. Leonard Road)	Miss M. E. Clark	5	1 0	110	27·37	...
D† ,, (Devon & Exet. Inst.) ...	Mr. E. Parfitt.....	6	13 7	155 ⅄	27·28	135
D ,, (Manston Terrace)	Miss Dymond	5	1 0	166 ⅄	27·53	187
D†Okehampton (Oaklands)	W. H. Holley, Esq. ...	5	1 0	521 T	45·46	194
D†Exeter (Brampford Speke)	The late W H Gamlen Esq	5	1 0	140 T	30·10	192
,, (,, ,,) ...M	,, ,, ,, ...	8	0 3	140 T	29·12	...
.. (,, ,,) ...	,, ,, ,, ...	5	1 0	140 T	27·35	192
D Holsworthy (Clawton)	W. W. Melhuish, Esq.	5	1 1	400	35·90	197
D Axminster (Furzebrook)	A. P. Rogers, Esq.....	5	1 5	128 T	28·57	177
D ,, ...	Mr. S. Griffin.....	5	4 6	138 T	33·41	166
D Hatherleigh (Broomford Manor)	Mr. W. Mortimore.....	5	1 4	484 ⅄	41·66	192
D Bradninch Vicarage	Rev. W. A. Strong ...	5	1 0	316 B	30·40	167
,, ,, ...	,, ,, ...	5	4 0	300	28·54	167
Hatherleigh (Winsford)	Mr. A. Muirhead	5	1 5	600	41·29	...
D Holsworthy (Cookbury Week)...	H. J. Callander, Esq...	5	1 0	490 T	40·31	224
D Cullompton	T. Turner, Esq.	5	1 0	202 ⅄	31·43	188
Tiverton (Cove)	W. N. Row, Esq.	11	1 0	450 ?	33·55	...
D ,, (Rose Bank)	H. B. Sharland, Esq....	5	1 0	280	33·13	194
D ,, (Broomhill)	Mrs. Dickinson	5	1 1	380	34·43	180
,, (Ivy Place)	H. S. Gill, Esq.....	5	6 0	270	32·37	193
Beaford	The late Col. Pigou ...	5	5 0	489 T	34·54	200
Church Stanton	Rev. A. D. Taylor.....	5	1 0	700 ?	33·45	...

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
DEVON—(*con.*)						
D†Torrington Vicarage	Rev. S. Buckland	5	1 3	323 T	36·70	179
D ,, (Stevenstone)	R. H. Lipscomb, Esq.	5	1 0	400	39·02	196
D ,, (Little Silver)	,, ,, ,,	5	1 0	400 T	39·14	211
D Bampton (Huntsham)	Col. Troyte	8	1 0	600 B	40·02	201
South Molton (Rose Ash)	Col. Davy	8	1 0	650 T	36·29	180
D Bideford(Heale House Littleham)	R. Sanders, Esq.	8	1 0	280 B	36·52	196
D Hartland Abbey	Mr. G. Sleep	5	1 6	...	39·03	183
D South Molton (East Street)	N.C.Hatherly, Esq.M.D	5	1 0	430 B	36·13	180
,, ,, (Castle Hill)	Mr. R. Nicholas	12	3 9	600	35·81	171
*†Bideford (Horwood)	Rev. J. Dene	5	1 0	288 T	32·47	199
D*† ,, (Northam)	Rev. M. D. Churchward	5	1 0	173 ⅄	32·47	197
D WestBuckland(DevonCntySchl.)	Rev. J. H. Thompson.	5	1 0	650	43·51	205
D†Barnstaple	Mr. Knill	8	1 0	31 ⅄	37·97	196
D ,, (Arlington Court)	Lady Chichester	8	1 1	613 B	49·04	213
D†Ilfracombe Hotel	Mr. W. Tattam	12	9 0	34	31·56	186
†Lynton (Lee Abbey)	C. F. Bailey, Esq.	5	0 6	320	30·17	...
D†Lynmouth (Glenthorne)	Mrs. Halliday	5	0 9	93	40·83	156
CORNWALL.						
Penzance (Penlee)	J. Branwell, Esq.	5	1 0	71 T	36·21	220
† ,, (South Parade)	W. H. Richards, Esq.	12	3 0	94 T	37·72	...
D ,, (St. Clare)	Rev.Preben. Hedgeland	5	1 0	213 T	36·58	245
D ,, (Poltair)	Miss Trelawny	5	1 0	243 B	38·72	220
Marazion	T. W. Field, Esq.	5	2 0	30 ?	31·79	220
Falmouth	The Meteor. Council	11	1 9	...	39·36	212
D ,,	W. L. Fox, Esq.	8	1 9	167	37·70	216
St. Just	Mr. R. B. Searle	5	1 0	400	36·90	...
D Falmouth (Carclew)	Mr. J. Simmons	5	0 9	...	37·03	171
D Redruth (Trewirgie)	A. H. Jenkin, Esq.	5	1 0	400 T	40·86	234
D†Truro (Royal Institution)	Mr. Newcombe	5	40 0	56 ⅄	32·63	178
D ,, (Porthgwidden)	Rev. Canon Phillpotts.	5	1 0	50	34·79	220
D Probus (Lamellyn)	H. Tresawna, Esq.	5	0 6	...	36·63	159
St. Agnes	Mr. Opie	5	1 3	278 B	35·52	154
Rame Rectory [Plymouth]	Rev. W. C. Evans	5	1 0	300 T	28·73	186
St Austell (St. Mewan)	Rev. G. L. Woollcombe	5	1 0	275 T	36·53	...
,, (Polcarne)	J. Coode, Esq.	5	1 0	244 ⅄	42·89	131
D†* ,, (Trevarna)	W. Coode, Esq.	5	0 6	300 ⅄	40·99	211
Par Station (Penellick)	W. E. Geach, Esq.	5	0 9	240 B	27·19	
D Maker Vicarage [Devonport]	Rev. P. H. Newnham	5	1 0	290 T	27·28	210
Empacombe [Devonport]	S. Harvey, Esq.	5	1 6	20	30·08	179
D St. Johns [Devonport]	Rev. J. H. Kirwan	5	1 0	20	31·65	193
D Lostwithiel (Lanwithan)	Miss Foster	10	1 0	80	38·89	206
D†Liskeard (Dean Terrace)	S. W. Jenkin, Esq., C.E.	5	1 1	375 ⅄	36·99	211
†Saltash (Pentillie Castle)	Mr. J. Mayne	5	1 3	150 B	40·49	181
†Bodmin (Lanhydrock)	Rev. Prebendary Every	5	2 1	390	43·74	208
,, (Castle Street) ...*weekly*	Capt. Liddell, R.N.	5	0 1	235 T	45·41	...
† ,, (,, ,,)	,, ,, ,,	5	1 0	236 T	43·64	213
D† ,, (,, ,,)	,, ,, ,,	8	2 6	237 T	42·62	213

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
CORNWALL—(*con.*)							
D†Bodmin (Fore Street)	Mr. A. Hambly	8	2	6	336 T	45·05	224
Liskeard (St. Cleer)	S. W. Jenkin, Esq., C.E.	5	1	1	620 R	42·79	...
D†Callington (Hingston Down)	Capt. Richards	5	3	0	850 T	43·38	226
D†Launceston (Altarnun)	Rev. J. Power	5	1	0	570 B	54·47	216
D ,, (South Petherwin)	Rev. H. T. May	5	0	7	470 B	39·49	217
,, (Hexworthy)	H. M. Harvey, Esq.	5	2	7	410 T	41·29	195
North Tamerton [Holsworthy]	Major Holt	5	0	10	500	37·06	222
D Stratton (Week St. Mary)	Rev. G. H. Hopkins	8	1	3	510 T	36·53	193
D Bude	J. Arthur, Esq.	5	1	0	16 B	30·00	155
SOMERSET.							
Chard (Cricket St. Thomas)	Rt Hn. Viscount Bridport	5	1	0	400 B	31·58	158
D Crewkerne (Bincombe House)	F. J. Sparks, Esq.	5	1	2	250 T	31·20	141
Yeovil (Hendford)	J. Curtis, Esq.	5	1	1	...	29·42	139
D Ilminster (White Lackington)	Rev. Prebendry Gowring	5	1	0	136 R	28·06	177
D South Petherton	W. Blake, Esq.	8	0	8	110 ?	26·30	177
Wellington (Sunnyside)	W. Elworthy, Esq.	5	1	0	...	31·46	123
D Temple Combe (Stowell Rect.)	Rev. H. J. Poole	5	1	0	376 B	31·79	215
D Milverton	J. H. Bere, Esq.	5	1	0	198	31·54	190
D ,, (Halse)	J. D. Hancock, Esq.	5	1	1	165	29·80	169
D ,, (Fitzhead Court)	E. H. Knollys, Esq.	5	1	0	200 ?	31·18	173
D Taunton (Lydeard House)	C. Smith, Esq.	...	...		...	28·56	168
Cothelston House	C. E. J. Esdaile, Esq.	5	1	0	500	29·56	161
D Wiveliscombe (Willett House)	J. Blommart, Esq.	5	0	7	380	32·18	157
D Somerton (Butleigh Court)	R. Neville, Esq.	8	1	2	80	31 48	173
D Glastonbury (Street)	W. S. Clark, Esq.	8	1	0	70	29·18	185
,, (,,)	J. Clark, Esq.	10	1	6	60	28·22	148
D Exford Rectory	Rev. Prebendary Howes	5	1	0	905 B	45·76	208
D Bridgwater (Ashford)	G. B. Laffan, Esq.	5	1	2	80	26·89	151
Watchet (Williton)	J. S. Ingram, Esq.	3	5	6	71	29·11	139
Shepton Mallet	J. Spire, Esq.	8	3	6	...	35·49	...
D Wells	Mr. R. J. Manning	5	44	0	188 T	33·79	170
D ,, (Westbury)	Miss Nalder	5	1	0	...	30·81	164
D Frome (Mells Rectory)	Rev. G. Horner	5	1	0	344 R	37·88	189
D ,, (Rock House, Mells)	W. A. Fussell, Esq.	7	2	4	326 T	37·57	194
Chewton Mendip (The Priory)	Mr. J. Dart	5	1	5	550 T	44·24	155
Ston Easton	H. E. Hippisley, Esq.	5	3	0	480 R	40·77	179
E. Harptree (Sherborne Reservoir)	Bristol Water Works	5	1	0	338 T	38 01	173
D ,, (Harptree Court)	W. W. Kettlewell, Esq.	5	1	0	345 R	41·40	182
Axbridge (Winscombe)	Rev. R. F. Follett	8	1	0	150 B	31·07	136
D Weston-super-Mare	R. S. Culley, Esq.	8	1	0	80	27·17	179
,, ,, ,, (High St.)	The Roy. Meteor. Soc.	5	1	0	20	26·96	181
,, ,, ,, (Worle Vic.)	Rev. W. F. Rose	5	1	0	16	32·02	...
,, ,, ,, (Kewstoke)	Rev. S. G. Gillum	5	0	8	40	29·48	169
Chew Magna	Bristol Water Works	5	1	0	160 T	35·18	162
D†Bath (Royal Literary Institute)	C. P. Russell, Esq.	6	8	0	75 R	26·62	162
D ,, (Queen's Parade)	H. Stokes, Esq.	5	1	0	100 T	28·59	206
D Batheaston Reservoir	A. Mitchell, Esq.	6	2	0	226 T	27·45	151

DIVISION V.—SOUTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell
			ft, in.	feet	inches.	
SOMERSET—(*con.*)						
Barrow Gurney Reservoir	Bristol Water Works...	5	1 0	320 T	36·60	170
Flax Bourton (Bourton Grange).	W. Miller, Esq.	5	0 9	...	32·53	167
D Bristol Docks	J.W.Girdlestone,Esq C.E	8	15 3	36 ⅄	28·98	165

DIVISION VI.—WEST MIDLAND COUNTIES.

GLOUCESTER.						
Bristol (Small Street)	Bristol Water Works...	12	33 10	52	28·68	173
D†Clifton (South Parade)	Dr. G. F. Burder	8	1 0	192 ⅄	33·39	173
Bristol (Over Court) Park.....	R.C.C. Lippincott,Esq..	5	1 0	148 T	32·51	189
,, ,, ,, Garden ...	,, ,, ,, ...	8	0 8	138	32·25	189
ChippingSodbury(FramptonCotl)	J. Marsh, Esq.	5	1 0	180 ⅄	30·12	154
D ,, ,, (StanshawsCt)	R. N. Hooper, Esq. ..	5	1 3	280 T	29·96	181
D Wickwar Rectory	Rev. R. J. Lyon	5	1 0	260 ⅄	28·54	168
D Fairford (Kempsford)	R. A. Iles, Esq....	5	0 8	..	21·82	148
D Berkeley (Salter Street)	J. H. Cooke, Esq.	5	8 0	60	22·91	154
D Nailsworth (Spring Hill)	E. P. Westley, Esq. ...	8	2 0	267	28·29	166
D Berkeley (Sharpness New Docks)	W.B.Clegram,Esq.,C.E	5	3 6	50	29·25	166
D Lechlade	T. Arkell, Esq.	5	0 10	...	22·58	155
Fairford (Park Farm)	A. Iles, jun., Esq.....	5	0 9	295 ⅄	23·40	102
D Cirencester (Claremont Place) ...	R. Gorton, Esq.....	8	1 0	356 T	28·17	229
,, (,, ,,) ...	,, ,, ,, ...	8	2 0	357 T	28·89	229
,, (,, ,,) ...	,, ,, ,, ...	8	0 6	356 T	28·79	229
,, (,, ,,) ...	,, ,, ,, ...	8	11 0	366 T	28·12	229
D ,, (Royal Agricultural Coll.)	H. H. Robinson, Esq....	5	1 0	443	26·77	176
Stroud (Brimscombe Port)	J.H.Taunton,Esq.,C.E.	8	10 0	200 ⅄	25·29	149
D ,, (,, Vic.)	Rev. J. Wilkinson	5	4 0	611 ⅄	28·02	185
D ,, (Upfield).....	Miss Stanton	5	1 0	226 ⅄	24·34	171
D Fairford (Hatherop Rectory) ...	Rev. R. P. Davies	8	1 3	411 ⅄	25·06	159
D Frampton-on-Severn(SaulLodge)	W.B.Clegram,Esq.,C.E	5	3 6	42 ⅄	25·04	169
D Coleford (The Coombs)	I. Trotter, Esq.	5	1 0	600	37·98	161
D Newnham-on-Severn.....	D. J. Wintle, Esq.....	5	0 3	56 ⅄	32·50	139
D Westbury-on-Severn Vicarage...	Mrs. C. J. Jones.....	5	0 8	62 ⅄	28·98	179
D Great Barrington [Burford].....	J. P. Wakefield, Esq...	8	1 0	416 T	27·62	153
Northleach (Yanworth).....	T. Arkell, Esq.	5	1 0	...	28·64	...
,, (Sherborne Park) ...	Hon. R. Henley Eden..	5	1 0	405	28·58	105
D* ,, (Hampnett Rectory).	Rev. W. Wiggin	5	1 0	653 ⅄	24·75	171
Gloucester (Quedgeley House)...	W. G. Robinson, Esq..	5	1 0	40 T	26·19	..
D ,, (Birdlip Hill)	A. S. Helps, Esq.	5	1 0	800 B	26·27	167
D ,, (Witcombe Res.).....	R. Read, Esq., C.E. ...	8	3 0	297 ⅄	28·02	153
D ,, (Llanthony Lock) ...	H.J. Marten, Esq., C.E.	5	1 2	39 ⅄	22·81	174
,, (Barnwood)	Dr. A. J. Wood.....	8	1 8	96 T	24·22	151
D ,, (Lower Barton Street)	W. P. Brown, Esq. ..	5	1 0	65 ⅄	22·89	161
D Mitcheldean (Edge Hill House)..	W. H. M. Phillips, Esq.	5	1 6	725 ⅄	28·30	160
D Andoversford (Hampen)	S. S. Buckman, Esq. ..	5	1 0	745 T	26·13	176
D Gloucester (Maisemore Lock) ...	H.J. Marten, Esq., C.E.	5	1 1	39 ⅄	23·33	200
D Bourton-on-the-Water.....	W. C. Coles, Esq., M.D.	5	1 6	435 ⅄	28·50	145

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter.	Height Above Ground	Height Above Sea Level	Depth of Rain 1884	Days on which ·01 or more fell.
				ft.	feet.	inches.	
	GLOUCESTER—(*con.*)						
D	Cheltenham (Battledown)	Sir Brook Kay, Bt. ...	5	0 8	393 ⅄	24·17	165
	,, (Northfield)	W. McLandsboro', Esq.	8	2 0	520	25·12	155
	,, (Hewletts Res.) ...	,, ,, ,,	8	0 9	400	24·98	155
	,, (Montpellier Lodge)	Rev. Dr. Kynaston ...	5	1 0	200	24·12	...
D	,, (Southam Villa) ...	R. Tyrer, Esq.	5	1 0	184 ⅄	24·04	190
	,, (,, ,,) ...	,, ,, ,, ...	5	1 0	184 ⅄	23·06	...
D	Moreton-in-Marsh (Longborough)	W. Arkell, Esq.....	5	0 9	...	27·21	163
D	Tewkesbury (Upper Lode)	H. J. Marten, Esq., C.E.	5	1 0	41 ⅄	24·37	171
D	,, (Beckford)	F. Slade, Esq., C.E. ...	8	1 0	120	23·02	163
	HEREFORD.						
D†	Ross (The Graig)	H. Southall, Esq.	5	1 0	213 ⅄	26·92	179
	Much Dewchurch (Bryngwyn)...	J. Rankin, Esq., M.P..	5	0 10	420 B	27·48	153
	St. Devereux (Whitfield Court).	Mr. R. Grindrod	5	1 2	427 T	27·40	120
D	Much Marcle (Caerswall)	T. Charles, Esq.....	5	1 0	423 B	24·51	162
D	Hereford (Fownhope Vicarage)...	Rev. T. West.....	5	1 0	192 B	22·90	127
D	Ledbury (West Bank)	T. E. Wheatley, Esq...	5	1 6	350	25·44	137
D	,, (Orchardleigh)	M. A. Wood, Esq.....	5	3 0	160	22·56	132
	,, (Putley Court)	J. Riley, Esq.....	5	1 0	280	24·89	154
	†Hereford (Hagley Park)	A. Hutchinson, Esq....	5	0 6	300 B	23·49	...
D	Ledbury (Colwall)	Mrs. Devas.....	5	0 10	650 B	25·75	169
D	,, (Canon Frome Vic.) ...	Rev. M. Hopton.....	8	1 3	250 T	24·43	157
	Hereford (Brinsop Vic.).....	Rev. W. Elliot	5	1 0	300 T	21·59	146
	,, (Burghill)	T.A.Chapman,Esq.M.D	5	1 0	275	21·89	147
	,, (,,)	,, ,, ...	5	1 0	275	22·18	147
D	,, (,, Portway).....	BaldwinLathamEsq CE	5	1 0	...	22·39	142
D	,, (Thinghill, Withington)	H. Higgins, Esq.	5	1 0	200?	23·87	147
D	Staunton-on-Wye	Rev. H. W. Phillott ...	8	1 1	255 B	26·82	166
D	Hope-u-Dinmore (Hampton C.).	J. H. Arkwright, Esq..	8	1 3	212 B	25·33	136
D	Kington (Lynhales)	S. Robinson, Esq.	8	1 0	...	30·05	...
D	Pembridge (Marston)	H. Langston, Esq.....	5	1 5	345	24·06	183
D	Leominster (Farm)	H. J. Southall, Esq. ...	5	1 0	250	27·29	178
D	Stoke Bliss	Rev. G. E. Alexander..	5	1 0	400 B	25·24	165
	SHROPSHIRE.						
	Burford	Rt.Hon.LordNorthwick	5	1 3	...	21·73	...
D	Ludlow (Ashford)	Rev. J. Selwood Tanner	5	1 5	233 ⅄	24·91	167
	Dowles [Bewdley]	J. M. Downing, Esq..	5	1 3	162 ⅄	22·61	139
	Cleobury Mortimer (Neen Savage)	Rev. F. Burd	5	0 11	367 T	27·89	158
D	Ludlow (Bromfield Vicarage) ...	Rev. W. Selwyn	5	1 0	300 T	27·71	147
	Craven Arms (Stokesay Vicarage)	Rev. J. D. La Touche..	5	1 0	371 ⅄	26·56	153
D	Burwarton	Rev. A. James	5	1 0	830	31·34	161
	Bishop's Castle (Castle Street)...	E. Griffiths, Esq.	5	2 10	720 B	29·18	173
D	,, ,, (More Rectory)...	Rev. A. S. Male.....	5	1 0	640 ⅄	28·22	197
D	Much Wenlock (Larden Hall) ...	Miss F.Rouse Boughton	8	1 3	658 ⅄	28·63	188
	Church Stretton (Preen Manor)...	A. Sparrow, Esq.	5	1 0	700	28·23	165
D	,, ,, (Woolstaston)...	Rev. E. D. Carr.	5	1 0	800 ⅄	29·64	185
D	Middleton in Chirbury	Rev. W. Brewster.....	5	1 2	702 ⅄	27·23	181

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
	SHROPSHIRE—(*con.*)							
D	Much Wenlock (Willey Park)...	T. H. Thursfield, Esq.	5	1	0	502 ⅄	24·78	170
D	Broseley (Benthall Hall)	G. Maw, Esq.....	8	1	0	600 B	25·17	182
	Hanwood	John Marshall, Esq. ...	5	2	7	342	22·57	149
	Shrewsbury .....*old gauge*	,, ,, ,, ...	10	5	6	240	20·82	160
D	,, ...*new gauge*	,, ,, ,, ...	5	2	6	240	20·89	160
D	,, (Onslow Hall)	Mr. J. Lambert	8	0	5	...	23·43	141
	,, (,, ,,)	,, ,, ...	8	0	3	...	23·11	...
D	Wem (Sansaw Hall)	F. G. Tippinge, Esq....	5	1	0	314 ⅄	21·39	158
	Oswestry (Park Avenue)	H. T. Wakelam, Esq.	...	...		...	30·72	...
	,, (Hengoed)	Rev. A. R. Lloyd	5	6	0	470 ⅄	30·83	...
	Market Drayton (Buntingsdale).	Mrs. Tayleur	5	1	0	276 ⅄	22·51	148
D	Adderley Rectory	Rev. A. Corbet	5	0	9	245 B	21·65	141
	Whitchurch (Green End)	Messrs. Jones & Co. ...	12	2	6	...	23·83	174
	STAFFORD.							
	Kinver Gram. Schl. [Stourbridge]	E. B. Marten, Esq., C.E.	8	0	6	180 L	23·22	164
	Dennis [Stourbridge]	Mr. C. Webb	8	6	6	270 B	23·93	160
D	Perry Hall [Birmingham]	Mr. G. B. Mitchison ...	6	3	0	...	23·73	164
	Walsall	E. B. Marten, Esq., C.E.	8	4	0	463 ⅄	26·73	166
	Wolverhampton (Town Hall) ...	G. E. Thoms, Esq., C.E.	5	15	6	481 ⅄	23·13	155
D	,, Park	Mr. W. Thomas	5	1	0	430 ⅄	26·03	178
D	Patshull Gardens	Mr. Bayne	8	1	3	400	21·82	149
D	Wolverhampton (Wrottesley) ...	Mr. E. Simpson	8	1	0	500	23·80	145
	Lichfield Museum	Mr. J. P. Roberts	5	2	0	220 ⅄	24·25	171
	,, (St. Michael's Rect.)...	Rev. J. J. Serjeantson..	5	0	5	320 ⅄	23·00	...
D	Weston-under-Lyziard [Shifnal].	Hon. Rev. J. Bridgeman	3	0	10	...	24·97	194
D	,, Park [Shifnal].....	Rt. Hon. Earl of Bradford	5	1	6	400	24·65	197
D	Penkridge (Rodbaston)	H. Ward, Esq.	5	1	0	260 ?	25·43	101
D	Alrewas (The Cottage)	E. Sellick, Esq.	5	1	6	...	19·04	122
D	Burton (Truman's Brewery).....	A. Reeve, Esq.....	5	1	0	160 T	23·72	157
D	,, (Shobnall)	R. W. Abbotts, Esq....	5	6	0	156 T	20·87	149
D	Uttoxeter (Leigh)	J. B. Piercy, Esq.	5	1	0	498 ⅄	30·61	168
D†	Cheadle (The Heath House).....	J. C. Philips, Esq.....	5	1	0	647 ⅄	27·04	176
D†	,, (Tean Vicarage) *new g.*.	Rev. G. T. Ryves	5	1	0	470 T	29·61	189
D	Longton (The Meir)	J. B. Piercy, Esq.	5	1	0	618 ⅄	30·23	171
	Stoke (Stanley Reservoir)..... .	W. H. Stubbs, Esq., C.E.	5	3	1	550 T	22·51	119
	Etruria	,, ,, ,, ...	5	4	2	440	25·65	109
D	Burslem	J. E. Worth, Esq., CE.	8	1	0	555 ⅄	26·09	182
D	Leek (Wall Grange)	J. B. Piercy, Esq.....	8	1	0	458 ⅄	30·37	173
D	,, (,, ,,)	,, ,, ,, ...	5	1	0	458 ⅄	29·11	173
	Knypersley [Congleton].....	W. H. Stubbs, Esq., C.E.	5	14	0	500 T	34·78	172
	Leek (Rudyard)	,, ,, ,,	5	12	7	500 T	26·03	102
	WORCESTER.							
	Blockley	R. B. Belcher, Esq. ..	5	1	0	350	26·27	...
	Northwick Park.....	Rt Hon Lord Northwick	8	1	6	292 ⅄	24·49	...
D	Little Malvern (The Farm)	E. J. Moody, Esq.	8	1	0	500 T	25·00	163
D	Malvern Wells	Col. H. Grant Young.	5	3	0	420 T	24·95	153

DIVISION VI.—WEST MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	WORCESTER—(*con.*)						
D	Evesham (Lansdowne)	R. Burlingham, Esq.	5	5 6	124 B	21·80	143
D	,, (Bank)	T. J. Slatter, Esq.	5	1 0	103 T	22·74	157
	West Malvern	A. H. Hartland, Esq.	8	1 6	850 B	25·73	157
D	Great Malvern (Hornyold Ter.)	H. Sandoe, Esq.	5	0 7	550 L	24·91	138
	,, ,,	J. E. Palmer, Esq.	5	1 0	361 ⩛	24·76	...
	,, ,, (Madresfield)	Rev. G. S. Munn	5	1 4	124 T	25·47	131
	,, ,, (,, Court)	Mr. W. Crump	8	1 0	135 T	24·77	116
D	Worcester (Diglis Lock)	H. J. Marten, Esq., C.E.	5	1 0	49 ⩛	24·89	157
D	,, (Bevere Lock)	,, ,, ,,	5	1 1	52 ⩛	21·67	170
D	,, (Hawford Lodge)	Mr. G. Read	5	1 1	...	24·59	172
D	Droitwich (Holt Lock)	H. J. Marten, Esq., C.E.	5	1 1	55 ⩛	21·51	141
D	Tenbury (Orleton)	T. H. Davis, Esq.	5	0 9	200 ?	25·96	169
D	Redditch (Prospect Hill)	H. Page, Esq., M.D.	5	1 0	420 T	25·24	175
D	Bromsgrove (Stoke Reformatory)	Mr. J. Salter	5	1 3	225 L	20·53	125
D	,, (Tardebigge Res.)	W. B. Clegram, Esq. C.E.	5	3 0	433 T	23·50	163
D	Stourport (Lincombe Lock)	H. J. Marten, Esq., C.E.	5	1 0	62 ⩛	22·88	191
	,, (Hartlebury)	J. Watson, Esq.	5	1 6	320	21·15	...
D	,, (Areley Court)	C. Harrison, Esq.	5	1 0	145 T	21·90	158
D	Bromsgrove (Upper Bittal Res.)	W. B. Clegram, Esq. C.E.	5	3 0	518 T	24·18	161
D	Bewdley (Tanner's Hill)	Mr. W. Wrather	8	2 0	...	23·17	151
	Stourbridge (Pedmore)	E. B. Marten, Esq., C.E.	8	0 11	350 ⩛	24·54	167
	,, (Longlands)	,, ,, ,,	8	1 0	260 ⩛	24·50	159
	WARWICK.						
D	Shipston (Compton Wynyates)	J. Sargent, Esq.	5	2 6	...	21·24	151
	Radway (Ivy Lodge)	Rev. G. Miller	5	1 1	530 T	22·36	161
	Kineton (Fenny Compton)	E. Knott, Esq.	5	4 0	430	20·40	. .
	Stratford-on-Avon (Avonside)	C. Lucy, Esq.	8	0 8	123 T	20·87	...
D	Warwick (Barford Rect.)	Rev. C. Mills	8	0 11	200 ?	21·54	166
D	Southam (Stockton)	Rev. W. Tuckwell	5	1 0	289 B	21·78	159
D	Warwick (Priory Gardens)	Mr. R. Greenfield	5	4 2	240 ⩛	22·32	126
	Leamington (Upper Parade)	J. Barnitt, Esq.	5	0 8	195 ⩛	20·80	143
D	Henley-in-Arden (Barrells Park)	T. H. G. Newton, Esq.	5	1 0	300 ⩛	26·66	188
D	Leamington (Blackdown)	A. S. Field, Esq.	5	0 9	250 T	22·52	150
D	Kenilworth (Park Hill)	F. G. Hawley, Esq.	8	0 8	300	22·81	166
D	,, (Fern Bank)	S. Forrest, Esq.	8	1 0	317 ⩛	22·21	171
D	,, (The Spring)	W. Evans, Esq.	5	1 0	312 ⩛	22·68	177
	Rugby School	C. H. Hodges, Esq.	5	1 3	383 T	22·08	159
D	Coventry (Ryton on Dunsmore)	C. Twamley, Esq.	5	1 2	260 T	22·12	162
D	,, (Priory Row)	J. Gulson, Esq.	8	1 2	279 ⩛	24·80	168
D	,, (Middlesboro' Terrace)	Miss Merry	5	1 0	345 ⩛	23·48	174
D	,, (Coundon)	Colonel Caldicott	5	1 0	350 T	25·13	166
D	Willey Rectory [Lutterworth]	B. P. M. Payler, Esq.	8	1 0	350 T	26·23	176
D†	Birmingham (Botanic Gardens)	Mr. Latham	5	5 2	505 T	19·78	163
D	,, (The Crescent)	J. J. Gilbert, Esq.	5	21 0	495 T	21·56	155
D	,, (Bloomsbury Street)	D. Smith, Esq.	8	0 8	340 T	24·33	147
	,, (Winson Green)	H. G. Hill, Esq.	5	1 0	470 L	23·47	165
	,, (,, ,,)	,, ,, ,,	12	4 0	470 T	23·50	165
D	Atherstone	Baldwin Latham Esq C.E.	5	1 0	286 ⩛	21·04	177

DIVISION VII.—NORTH MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
LEICESTER.							
D Market Harboro' (The Hutch)...	R. Symington, Esq.....	8	4	0	267 T	19·89	155
Ashby Magna	Rev. Canon Willes.....	5	1	6	438 T	20·58	159
†Fleckney.....	J. B. Putt, Esq.....	5	1	0	411 T	23·75	...
D Church Langton.....	G. H. Logan, Esq. ...	8	4	0	400 B	21·39	174
D†Kibworth Beauchamp	T. Macaulay, Esq.....	5	2	6	355 T	21·85	159
Hinckley (Mill Hill House).....	Rev. A. L. Watherston	5	1	0	400 ?	21·93	145
D†Leicester (Town Museum)	J. C. Smith, Esq.	5	1	0	238 T	21·80	177
D†Thornton Reservoir	F. Griffith, Esq., C.E..	10	2	8	420 ?	21·34	140
Barkby	Rev. E. N. Pochin.....	5	0	1	212 B	18·52	161
D Thurcaston (Cropston)	F. Griffith, Esq., C.E..	8	1	0	...	20·57	159
D Melton Mowbray (Dalby Hall)...	Mr. G. Jones	8	2	6	480 B	21·41	151
D ,, ,, (ThorpeArnold)	Rev. J. S. Swift.....	8	2	3	320 ?	20·41	161
Loughborough (Nan PantonRes.)	A. W. Cross, Esq., C.E.	8	2	11	269 ⅄	20·47	163
,, (Cedar Cottage)...	J. Giles, Esq.	5	0	9	327 T	22·95	...
D ,, (Victoria Street)..	W. Berridge, Esq.....	5	0	10	169 B	19·57	163
,, (,, ,,)..	,, ,, ...	8	0	11	169 B	19·55	163
D Melton Mowbray (Coston Rect.)	Rev. A. M. Rendell ...	5	1	0	300 ?	20·37	179
D Waltham-le-Wolds	Mr. E. Ball.....	5	1	6	532 ⅄	21·67	166
D Harston [Grantham].....	F. Beasley, Esq.....	...	1	3	...	19·28	151
D†Belvoir Castle	W. Ingram, Esq.	8	1	0	237 T	18·21	177
RUTLAND.							
D Uppingham (West Deyne)	Rev. G. H. Mullins ...	8	1	6	485 ⅄	18·97	155
,, (Ayston)	Mr. Hull.....	5	1	0	...	21·54	...
D Ketton Hall [Stamford]	F. Coventry, Esq.	5	1	0	130 B	17·94	152
Whitwell Rectory	Rev. J. Beecheno	12	6	0	...	18·04	...
D Tolethorpe Hall [Stamford].....	C. O. Eaton, Esq.	8	0	8	100	16·37	143
Burley-on-the-Hill	Mr. W. Temple	8	1	0	...	19·62	151
Ryhall.....	Rev. C. Potchett	5	1	0	...	16·81	122
Oakham (Greetham)	Rev. C. A. Holmes ...	5	0	8	377 ⅄	20·02	143
D Market Overton.....	Miss H. E. G. Wingfield	8	0	11	...	21·23	190
LINCOLN.							
Stamford (Barn Hill Ho.).....	Dr. Newman	5	1	0	116 T	16·98	...
,, (Castle Cottage).....	T. Booth, Esq.	5	1	0	...	17·33	...
D ,, (Northfields)	Mr. W. Hayes	5	1	0	166 ⅄	17·91	140
D*Bourne (Wytham-on-the-Hill)..	A. C. Johnson, Esq. ...	5	2	0	167 ?	16·63	104
Long Sutton (Tydd Gote).....	Mr. J. Tilson	5	4	0	...	18·90	139
Spalding (Pode Hole)	Mr. A. Harrison.....	12	0	3	20 ⅄	16·75	...
Grantham (Saltersford).....	H. Preston, Esq.	5	0	7	188 ⅄	17·76	129
,, (Heydour Vicarage)..	Rev. G. F. Deedes.....	5	1	2	...	17·37	124
D Boston (High Street).....	W.H.Wheeler,Esq.C.E	5	6	6	24 ⅄	16·17	129
D ,, (Grand Sluice)	J.E.Williams,Esq., C.E	8	6	0	22	16·35	160
Leake (Lade Bank Engines).....	,, ,, ,,	...	...		...	19·13	125
D Stubton [Newark].....	G. Nevile, Esq.	5	4	6	...	18·22	153
Sleaford (Bloxholm)	Mr. D. Lumsden	5	1	0	60	16·92	109
D Navenby.....	Rev. J. Hays	8	0	4	215 T	16·25	162
D Skegness.....	C. H. Tippet, Esq. ...	8	1	6	10 L	18·73	123

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell.
			ft. in.	feet.	inches.	
LINCOLN—(*con.*)						
Horncastle (Miningsby)	W.H.Wheeler,Esq.C.E	5	0 6	131 ⅄	19·08	110
D Lincoln (Longhills)	A.S.LeslieMelville,Esq.	5	0 6	110 ?	17·68	133
D Spilsby	Dr. J. W. Walker	5	1 0	200 ?	22·85	153
,, (Partney)	Rev. T. Owston	5	1 0	73	22·50	167
D Horncastle (Bucknall)	W. Carter, Esq.	5	1 6	100	18·44	121
,, (Queen Street)	H. George, Esq., M.D.	5	1 0	100	20·20	...
D† Lincoln (Boultham)	Mr. F. Terrill	5	1 0	18 ⅄	17·40	121
† ,, (St. Botolphs)	H. Teague, Esq.	5	1 3	25 ⅄	16·82	...
D ,, (Doddington)	Rev. R. E. Cole	5	1 2	...	17·34	162
,,	M. S. & L. R. Co.‡	9	3 6	26	15·43	156
D ,, (Brayford Wharf)	Mr. J. W. Horton	5	5 8	28 ⅄	16·55	162
,, (Tentercroft Street)	W. F. Norton, Esq.	8	1 3	22	17·03	151
,, (The Quarry)	R. Swan, Esq.	8	0 8	210	16·01	160
,, (Skellingthorpe Hall)	R. C. B. Coupland, Esq.	5	1 1	.	17·53	139
D Horncastle (Hemingby)	Rev. E. S. Bengough	5	1 0	101 ?	22·01	176
D Alford (The Burial Ground)	Mr. E. Hodgson	5	1 0	29 ⅄	20·44	172
D ,, (The Sycamores)	J. E. Mason, Esq.	8	1 3	22	20·26	196
D ,, (Sutton-by-the-Sea)	F. Lowry, Esq., C.E.	5	1 0	9 ⅄	19·44	136
Gate Burton	M. S. & L. R. Co.	9	3 6	96	17·00	135
†Louth	T. W. Wallis, Esq.	5	6 0	111 ⅄	20·89	171
† ,, (Westgate)	Dr. F. Fawssett	5	0 9	120 ⅄	20·50	169
,, (,,)	Rev.J.A.BarrowClough	5	1 0	...	21·71	...
Market Rasen	M. S. & L. R. Co.	9	...	100	19·48	108
Gainsborough	,, ,, ,,	9	...	76	?13·43	123
Stockwith	,, ,, ,,	9	3 6	21	17·19	129
Caistor	Rev. R. Thomas	5	0 9	...	17·48	151
Wroot Engine	A. L. Peace, Esq., C.E.	10	5 6	...	15·09	112
Brigg	M. S. & L. R. Co.	9	3 6	16	?13·11	115
D ,,	A. Atkinson, Esq., C.E.	8	1 2	16 T	19·99	159
D Grimsby (Aylesby)	S. McAulay, Esq.	5	1 0	...	18·82	144
,,	M. S. & L. R. Co.	9	15 0	42	15·34	113
D Ulceby (Limber Grange)	T. Hopkins, Esq.	5	1 6	210 B	21·92	177
Barnetby	M. S. & L. R. Co.	9	3 6	51	17·83	111
N LevelEngine[ThorneDonc'st'r]	A. L. Peace, Esq., C.E.	5	2 3	...	16·82	155
Crowle (Keadby)	M. S. & L. R. Co.	9	...	10	?13·71	110
Appleby	Rev. J. E. Cross	5	0 9	60 L	19·85	147
D Ulceby (Killingholme)	Rev. J. Byron	5	1 4	60 ⅄	19·60	184
Ferriby Sluice	Rev. J. E. Cross	5	0 9	10	18·18	...
New Holland	M. S. & L. R. Co.	9	3 6	18	16·54	146
NOTTS.						
Normanton on Soar [Loughboro']	T. W. Rowland, Esq.	5	0 0	118	19·29	..
D Kingston Hall [Loughborough]	Mr. J. W. Bayne	5	2 0	...	19·62	140
D Thrumpton Hall	Mr. Geddes	5	0 7	111 ⅄	17·85	141
D Cropwell Bishop (CropwellGrove)	H. Smith, jun., Esq.	5	1 1	160	19·74	136
D Nottingham (Beeston Fields)	G. Fellows, Esq.	5	0 9	206 ⅄	20·08	155
D ,, (Park Hill)	H. F. Johnson, Esq.	8	2 0	280 L	21·45	163

‡ Kept for the Canals Department of the Manchester, Sheffield, and Lincolnshire Railway Company.
Returns supplied by R. D. Heathcott, Esq.

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell
				ft. in.	feet.	inches.	
	NOTTS—(*con.*)						
D	Nottingham (The Park)	M.O.Tarbotton,Esq,CE	8	1 0	183 ⅄	20·10	147
D	,, (CavendishCrescentN)	J. D. Walker, Esq	5	1 2	234 ⅄	19·46	154
D	,, (StokeBardolphSewFrm)	Mr. J. Avis	8	6 7	...	18·17	109
	,, (StrelleyChurch) M	T. L. K. Edge, Esq.	5	62 0	444 T	16·75	...
D	,, (,, Hall)	,, ,, ,,	8	1 0	396 ⅄	21·35	163
	,, (,, ,,) M	,, ,, ,,	5	1 0	396 ⅄	21·60	...
D	,, (Mapperley Hill)	E. Powell, Esq.	8	1 0	400	19·36	126
D	,, (Gedling)	Hon&RvO.W.Forrester	5	3 6	140 T	20·87	149
D	,, (WoodthorpeGrange)	H. Ashwell, Esq.	8	1 3	270 ?	20·08	128
D	East Bridgford	Dr. W. W. Morris	4	1 6	...	19·74	140
	Eastwood Colliery	Mr. W. Weston	5	38 0	275 T	20·20	154
D	,,	,, ,, ,,	5	1 0	245 T	24·41	161
	Greasley (Moorgreen)	S. Taylor, Esq.	5	4 0	387 ⅄	22·37	162
D	Hucknall Torkard (Forge Mills)	J. D. Walker, Esq.	5	1 0	200 ?	20·21	161
D	Newark (East Stoke)	Miss Stanton	5	1 3	...	19·89	160
D	Annesley Park	Mr. A. Young	8	2 0	560	22·91	126
	Southwell (Oxton)	H. Sherbrooke, Esq.	5	0 9	...	22·43	161
D	Newark	Mr. A. Read	5	0 10	...	16·99	145
D	Mansfield (Market Place)	Mr. W. Jackson	5	1 0	370 T	24·63	171
D	Ollerton (Thoresby Gardens)	Mr. A. Henderson	8	3 0	175	22·09	139
D	Tuxford (Grammar School)	J. N. Dufty Esq.	5	1 0	220 T	18·41	146
	Worksop	M. S. & L. R. Co.	9	3 6	127	19·30	132
D	,, (Osberton)	Mr. S. A. Woods	5	3 10	...	23·30	...
	Retford	M. S. & L. R. Co.	9	3 6	52	16·99	147
D	Worksop (Hodsock Priory)	H. Mellish, Esq.	8	1 0	56 ⅄	19·31	158
	,, (,, ,,) M	,, ,,	5	1 0	56 ⅄	18·37	...
D	The Gardens [Bawtry Hall]	L. T. Baines, Esq.	5	1 0	31 T	15·56	160
D	Hesley Hall [Tickhill]	B. I. Whitaker, Esq.	8	0 11	62 T	16·33	157
	DERBY.						
D	Stapenhill [Burton]	R. W. Abbotts, Esq.	5	4 0	170	21·65	166
D	Bretby Park [,,]	Mr. G. Brunt	5	4 6	405 T	22·58	154
D	Stapenhill Road [Burton]	A. J. Brown, Esq.	5	1 0	...	22·69	176
	Winshill [Burton]	J. Matthews, Esq.	5	1 0	272 T	20·79	147
D	Melbourne	Miss Tasker	5	0 5	...	23·52	141
	Derby (Findern)	Rev. B. W. Spilsbury	5	0 9	192 B	20·15	...
D	,, (Elvaston)	H. Chambers, jun. Esq	5	1 0	...	19·58	170
D	Mickleover Manor	Mr. J. Campbell	5	2 0	200	23·16	137
D	Derby (Christ Church Vic.)	Rev. W. H. Askwith	5	1 0	265 ⅄	22·77	113
	,, (Duffield)	Mr. W. Bland	5	1 0	250 T	26·74	165
D	Milford	B. Cooper, Esq.	5	6 0	210 ?	31·05	182
D	Belper (Northfield)	J.Hunter,Junr.Esq.C.E	8	0 8	225	28·10	162
	Wirksworth (Biggin)	J. B. E. Blackwall, Esq	8	1 3	480 T	30·54	115
D	,, (Holloway)	R. Wildgoose, Esq.	5	1 0	450 T	31·66	184
†	Matlock (Willersley Gardens)	Mr. Barlas	6	1 3	440 T	34·47	...
†	,, Bath	Mrs. Chadwick	5	1 6	500 T	34·66	...
	Stretton (Lindway Res.)	R. G. Coke, Esq., C.E.	5	4 3	447 ⅄	19·51	128
D	Stuffynwood Hall [Mansfield]	J. Paget, Esq.	5	1 3	389 T	21·86	169

DIVISION VII.—NORTH MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Diameter	Rain Gauge. Height above Ground.	Rain Gauge. Height above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
DERBY—(*con.*)						
Chesterfield (Hardwick Hall) ...	Mr. Wilson.....	8	2 6	594 T	25·00	177
D ,, (Grassmoor Colliery)	E. Bromley, Esq.	5	19 10	370	20·49	163
Chatsworth Gardens	O. Thomas, Esq.	8	6 0	404	26·10	...
D Chesterfield (Brampt'n S. Thomas)	Rev. J. M. Mello	5	3 0	314 T	20·19	119
D ,, (Gas Works)	C. E. Jones, Esq.	5	1 0	279	23·68	168
,, ...	M. S. & L. R. Co.	9	3 6	248	22·85	160
D ,, (Linacre Reservoir).	C. E. Jones, Esq.	8	3 6	490 ⅄	24·24	158
,, (Brimington Hall) .	R. G. Coke, Esq., C.E.	5	1 4	408 ⅄	25·18	189
†Buxton (Devonshire Hospital)...	Dr. E. J. Sykes.....	5	1 0	986 ⅄	44·96	178
†Stony Middleton	Rev. U. Smith	5	4 0	692 B	32·52	168
†Comb's Moss	M. S. & L. R. Co.	9	3 6	1669 T	38·21	...
† ,, Reservoir	,, ,, ,, ...	9	3 6	710 T	34 48	182
†Chapel-en-le-Frith	,, ,, ,, ...	9	3 6	965 T	36·86	195
Kilnarsh (Norwood)	,, ,, ,, ...	9	3 6	238 T	19·66	105
†Castleton.....	Miss Hall	5	1 0	700	40·15	...
Hathersage (Bamford)	W. C. Moore, Esq.....	5	1 0	530 T	34·54	...
†Glossop (Spire Hollin)	F. Hawke, Esq.	10	0 10	612 T	37·26	...
†Woodhead Station	M. S. & L. R. Co.	9	3 6	878 T	43·75	201

DIVISION VIII.—NORTH WESTERN COUNTIES.

CHESHIRE.						
D Nantwich (Cholmondeley Castle)	Mr. J. Malcolm	8	1 0	. .	26·73	166
Chester (Pulford Hall)	R. Massie, Esq.	5	3 0	60 ⅄	23·09	167
D Congleton (Buglawton Vic.).....	Rev. W. Besant.....	8	5 0	347 T	24·94	142
Macclesfield (Wincle)	W.H.Stubbs, Esq., C.E.	5	3 0	500	30·32	148
Bosley Reservoir	M. S. & L. R. Co.	9	3 6	590 T	29·25	180
,, Minns.....	,, ,, ,, ...	9	3 6	1210 T	27·91	182
D Chester (Rowton Grange).....	T. R. Fleming, Esq. ...	5	1 0	164 B	23·18	151
D ,, (Christleton Hall)	Mr. T. Weaver	5	1 2	142 ⅄	24·30	147
† ,, (Lead Works).....	A. O. Walker, Esq. ...	5	1 0	65 T	24·85	154
D ,, (,, ,, Field) ...	,, ,, ,, ...	5	1 0	67 T	24·31	167
D ,, (Abbots Hayes)	C. H. Cotton, Esq. ...	5	1 2	80 B	25·26	160
D† ,, (Newton Nurseries).....	J. Dickson & Sons	8	0 8	62 ⅄	26·93	181
Middlewich (Bostock Hall)	Col. France Hayhurst..	5	2 0	157 ⅄	24·78	120
D Macclesfield (The Park)	Mr. J. Dale.....	5	1 0	501 T	31·21	168
D Chelford (Astle Hall)	G. Dixon, Esq.	5	1 0	250 T	26·09	167
,, (,, ,,) .....M	,, ,, ...	8	1 0	250 T	25·95	...
D Northwich (Highfield)	L. B. Wells, Esq., C.E.	8	3 4	118 ⅄	25·11	169
,, (Winnington).....	H. Neumann, Esq.....	8	1 3	120 T	24·86	169
*Neston (Oakhill) .....M	Reginald Bushell, Esq.	5	1 0	97 ⅄	23·11	...
D* ,, (Hinderton)	,, ,, ,, ...	5	1 0	215 ⅄	24·22	177
* ,, (,,) .....M	,, ,, ,, ...	8	1 0	215 ⅄	24·04	...
D Frodsham (Foxhill)	J. Reynolds, Esq.	5	0 10	230 T	23·64	169
,, (Dunsdale)	J. Simpson, Esq.	5	1 1	206	25·43	...
Knutsford (Heath Side)	W. Tyrer, Esq.	5	1 0	210	26·50	184
Bollington (Spond's Hill).....	M. S. & L. R. Co.	9	3 6	1279 T	30·00	...

DIVISION VIII.—NORTH WESTERN COUNTIES. (*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	CHESHIRE—(*con.*)						
†	Whaley	M. S. & L. R. Co.	9	3 6	602 T	39·90	196
D	Disley	Miss Withington	5	0 6	615 B	35·09	188
	Stockport (Cheadle Hulme)	A. Grundy, Esq.	5	1 0	196 T	23·80	169
D	Runcorn (Weston Point)	L. B. Wells, Esq., C.E.	4	2 4	18	27·56	141
D	Hill Cliffe [Warrington]	J. Marson, Esq.	5	1 0	159 ⊼	26·25	181
	Lymm (Agden Hall)	Mr. D. Knight	5	1 0	190	27·41	145
	Bowdon (Erlesdene)	Late J. Sidebotham, Esq.	8	0 6	211 ⊼	23·91	...
	,, (The Firs)	R. Swindells, Esq., C.E.	5	0 8	215 ⊼	26·02	...
D	Thelwall (Highfields)	T. G. Rylands Esq.	5	1 0	118 ⊼	24·70	176
	,, (,,) ... M	,, ,, ,,	5	1 0	118 ⊼	24·82	...
D	,, (Millington House)	L. W. Reynolds, Esq.	5	1 0	90	27·04	177
D	Lymm (Statham Lodge)	P. Stubs, Esq.	5	1 0	42 ⊼	26·08	180
	,, (,,) ... M	,, ,,	5	1 0	42 ⊼	26·37	...
	Altrincham (Norman's Place)	A. Griffith, Esq.	5	1 0	150 T	29·94	152
	,, (Barrington House)	J. Newton, Esq., C.E.	8	3 0	105 ⊼	27·13	...
†	Birkenhead (Bidstone Obs.)	J. Hartnup, Esq.	8	0 6	182 T	25·28	181
	Northenden (Wythenshawe)	T. W. Tatton, Esq.	5	1 0	114 T	26·24	148
	Marple Top Lock	M. S. & L. R. Co.	9	3 6	543 T	30·44	175
	,, Aqueduct	,, ,, ,,	9	3 6	321 T	29·28	171
	Sale (Brooklands)	J. F. Jordan, Esq.	5	5 6	130	31·04	...
D	Ashton-on-Mersey (Brunsw'k cot)	E. Wells, Esq.	5	1 0	84 L	25·61	183
	Godley Reservoir	J. F. Bateman, Esq. F.R.S.	...	...	500	29·53	...
	Newton	M. S. & L. R. Co.	9	3 6	396 T	27·81	183
	Mottram (Hill End)	,, ,, ,,	9	3 6	680 T	39·30	176
	,, (Matley's Field)	,, ,, ,,	9	3 6	399 T	33·81	195
	Arnfield Reservoir	J. F. Bateman, Esq. F.R.S.	...	...	550	34·36	...
†	Rhodes Wood Reservoir	,, ,, ,,	12	1 0	520	37·40	..
†	Torrside Reservoir	,, ,, ,,	12	1 6	680	37·27	...
	Staleybridge (Swineshaw)	,, ,, ,,	8	3 0	884 ⊼	37·47	...
†	Woodhead Reservoir	,, ,, ,,	12	0 10	660	44·59	...
	LANCASHIRE.						
D	Garston (Grassendale Park)	Miss E. C. Abraham	5	1 0	35 T	25·91	193
D	Aigburth (Kelton)	J. Sing, Esq.	5	1 0	135 T	26·80	172
	Woolton (Roseleigh)	A. Tate, Esq.	12	4 6	170 B	29·38	...
D	Warrington (Arpley)	T. Longdin, Esq.	10	10 3	33 ⊼	26·72	180
	,, (Cemetery)	,, ,, ,,	10	1 0	32 ⊼	28·57	...
	Liverpool (Grove Park)	J. R. Darsie, Esq.	3	6 0	160	27·46	181
D	,, (Hope Street)	S. W. Jevons, Esq.	5	11 3	162	27·59	180
D	,, (St. James's Mount)	Rev. W. Banister	5	1 1	150 ⊼	27·69	168
D	Heaton Moor [Stockport]	J. P. Lynill, Esq.	5	1 4	236	27·47	179
D	Walton (Breeze Hill)	W H Andersson, jun, Esq	5	1 11	119 ⊼	28·50	182
	,, (,, ,,)	,, ,, ,,	8	1 2	119 B	28·59	182
	Manchester (Withington)	J. King, jun., Esq.	5	1 0	110 T	27·11	168
	,, (,,)	,, ,, ,,	5	1 0	110 T	27·05	168
	,, (,,)	,, ,, ,,	8	1 0	110 T	26·67	168
D	,, (Stretford)	H. Royle, Esq., C.E.	5	1 0	86 ⊼	24·81	173
	Denton Reservoir	J. F. Bateman, Esq. F.R.S.	...	...	324 T	27·14	...

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which '01 or more fell.
				ft. in.	feet.	inches.	
	LANCASHIRE—(*con.*)						
	Gorton	J. F. Bateman, Esq. F.R.S.	...	...	263 T	27·06	...
D	Manchester (Plymouth Grove)	J. F. Roberts, Esq.	5	4 2	150 ⅄	29·11	178
D	,, (Ardwick)	J. Casartelli, Esq.	9	3 0	140 ⅄	28·48	164
	,, (Embden Street)	J. Hart, Esq.	5	6 6	112 T	28·16	166
†	,, (Piccadilly)	M. S. & L. R. Co.	9	40 0	194 T	29·33	157
	,, (Fairfield)	,, ,, ,,	9	6 0	312 T	30·43	164
D	Eccles (Worsley Hall)	Mr. W. B. Upjohn	8	10 0	80	26·46	128
	Blundellsands (Park Corner)	T. M. Reade, Esq. C.E.	5	1 0	35 ⅄	26·75	201
D	Manchester (Newton Heath)	J. Warren, Esq.	5	1 0	242 ⅄	31·76	204
	Ashton (Waterhouses)	M. S. & L. R. Co.	9	3 6	345 T	32·41	178
	*Maghull	I. Roberts, Esq.	5	1 0	68 ⅄	26·63	154
	Prestwich Asylum	The Meteor. Council	8	1 0	295	32·22	175
	,, Reservoir	J. F. Bateman, Esq. F.R.S.	...	...	347 T	31·19	...
	Oldham (Gas Works)	,, ,, ,,	5	4 0	600 T	32·43	...
	,, (Brushes Clough)	,, ,, ,,	5	4 0	930 T	40·12	...
D	Wigan Waterworks	W. Bolton, Esq.	8	1 6	225 T	29·79	178
	Bolton-le-Moors (The Folds)	H. H. Watson, Esq.	10	3 6	286 T	35·75	...
D	,, (Hampden St.)	J. Rigby, Esq.	5	4 6	350	40·04	199
	,, (Heaton)	R. H. Swindlehurst, Esq.	6	1 3	500	31·80	229
D	,, (,,)	J. S. Holdsworth, Esq.	10	3 6	497 ⅄	36·49	182
D	,, (Hurst Bank)	J. Watkins, Esq.	5	3 1	442 ⅄	36·05	192
D	,, (New Road, Halliwell)	W. Tyson, Esq.	5	1 6	470 B	39·94	199
	,, (Moss Bank)	R. H. Ainsworth, Esq.	8	1 6	570 T	41·30	152
	,, (Smithill's Hall)	,, ,, ,,	8	1 2	515 T	36·41	165
	,, (Belmont Road)	Rev. T. Mackereth	5	1 10	500 ⅄	41·46	194
	Bury (Gin Hall)	T. Rigby, Esq.	8	1 0	475	37·44	158
	Rochdale (Castleton Vic.)	Rev. J. Chadwick Bates	8	1 0	475 ⅄	29·70	...
	Milnrow (Piethorne)	J. F. Bateman, Esq. F.R.S.	5	4 0	767 T	28·37	...
D	Rochdale (Park Observatory)	Dr. Henry	8	0 8	472	34·89	177
D	,, (Drake Street)	T. H. Hayle, Esq.	5	3 7	473 ⅄	33·69	193
D	Ormskirk (Rufford)	J. Porter, Esq.	5	0 8	38 T	28·57	185
	Bolton (Belmont)	R. H. Swindlehurst, Esq.	6	0 9	800	49·60	249
	Rochdale (Nayden Dane)	J. Diggle, Esq., C.E.	5	1 6	900 T	34·47	...
	Southport (Hesketh Park)	J. Baxendell, Esq.	5	2 8	23 ⅄	34·13	181
	Entwistle	R. H. Swindlehurst, Esq.	7	1 0	700	42 50	213
	Littleborough (Windy Bank)	C. R. Dykes, Esq.	10	1 6	600	30·40	...
	Blackstone Edge	,, ,, ,,	10	1 9	1225	33·50	...
	,, ,, (Canal Summit)	,, ,, ,,	10	1 11	700	32·00	...
	,, ,, (Chelbourn)	,, ,, ,,	10	1 3	800	37·50	...
	,, ,, (Lenches)	,, ,, ,,	10	1 9	800	32·80	...
D	Chorley (Whittle-le-Woods)	Theodore J. Hare, Esq.	5	2 6	265 T	33·48	178
	Haslingden (Holden Wood)	T. Rigby, Esq.	8	1 0	670	43·56	151
	,, (Calf Hey) M	,, ,,	8	1 0	800	41·60	151
	Chorley (Withnell Hall)	J. Shackleton, Esq.	5	0 6	545	38·39	...
	Over Darwen (Sunnyhurst Hey)	T. Duxbury, Esq.	8	2 0	915 T	31·90	168
D	,, ,, (St. James's Vic.)	Rev. W. H. Blamire	5	1 0	564 ⅄	42·03	187
	,, ,, (Hoddlesden Res.)	J. B. McCallum Esq., C.E	8	4 0	680	45·59	171
	,, ,, (Daisy Green)	,, ,, ,,	8	1 0	969 ⅄	39·60	164

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
LANCASHIRE—(*con.*)						
Over Darwen (Pickup Bank) ...	J.B.McCallumEsq.,C.E	8	1 0	720 ⅄	39·89	164
ɒ†The Hall [Todmorden]	H. C. Taylor, Esq. M.D	5	0 10	420 ⅄	45·52	196
Blackburn (Guide Reservoir) ...	J.B.McCallumEsq.,C.E	8	1 0	650	31·45	175
ɒ Lytham (Woodville Terrace) ...	S. Stott, Esq.	8	2 1	...	31·01	228
ɒ ,, (Clifton Square)	Dr. Fisher	8	0 5	27	31·57	194
Blackburn (Pleasington)	J.B.McCallumEsq.,C.E	8	2 6	232 ⅄	32·22	...
,, (Witton)	,, ,, ,,	8	2 6	315 ⅄	35·64	186
† ,, (Store Yard)	,, ,, ,,	8	30 0	373 ⅄	30·77	168
,, (Water Works Office)	,, ,, ,,	8	60 0	436 ⅄	27·78	172
,, (Pumping Station) ...	,, ,, ,,	8	6 0	610 ⅄	35·43	174
Accrington (Warmden Reservoir)	R. Crossley, Esq.	8	1 9	650 T	37·46	152
,, (Washington House)..	E. Knowles, Esq.	5	30 0	530 ⅄	35·91	183
,, (Milnshaw Grounds)..	,, ,, ,, ...	5	1 6	464 ⅄	36·00	176
ɒ Preston (Corporation Offices) ...	H. Reah, Esq.	8	16 0	123	31·21	176
,, (Green Bank Railway)...	J. J. Myres, Esq.	5	16 7	105	23·93	...
†Rawtenstall (Clough Bridge Res.)	T. Rigby, Esq.	8	1 0	900 ⅄	41·45	201
Burnley Waterworks †Causeway Side	W. Williamson, Esq.	8	2 0	1116	39·49	...
Burnley Waterworks †Sheddin	,, ,, ,,	8	2 0	960	39·53	...
Burnley Waterworks †Cant Clough, S. Side	,, ,, ,,	8	2 0	900	41·08	202
Burnley Waterworks † ,, ,, N. Side	,, ,, ,,	8	2 0	900	39·79	202
Burnley Waterworks †Rams Clough Head	,, ,, ,,	8	2 0	1260	38·74	...
ɒ Huncoat (Burnley Road Res.) ...	C. Harrison, Esq.	9	1 6	620 ⅄	38·28	176
†Burnley (Rosegrove Cemetery)...	W. B. Bryan, Esq., C.E.	8	1 0	493 ⅄	36·88	152
ɒ ,, (Mechanics Institute)...	,, ,, ,,	8	...	...	28·55	183
† ,, (Yorkshire Street)	W. Williamson, Esq...	8	30 0	420 ⅄	39·32	198
,, (Simonstone)	W. B. Bryan, Esq., C.E.	5	1 0	366 ⅄	38·64	187
† ,, (Swinden, Upper)	W. Williamson, Esq...	8	12 0	820 ⅄	39·97	205
† ,, (,, Lower)	,, ,, ,, ...	8	2 0	745 ⅄	40·38	204
† ,, (Extwistle Moor)	,, ,, ,, ...	8	2 0	1310 T	45·69	...
ɒ ,, (Gawthorpe Hall)	Sir C.K.Shuttleworth Bt	8	1 0	316 T	39·05	156
† ,, (Briercliffe Vicarage) ...	Rev. R. D. H. Gray ...	5	1 0	680 ⅄	38·37	204
ɒ Preston (Haighton)	J. J. Myres, Esq.	5	1 2	255 T	39·30	200
Alston	H. Reah, Esq.	8	1 2	320 ⅄	41·80	...
Blackpool (South Shore)	G. Sharples, Esq.	10	1 8	29 T	30·42	...
ɒ ,, (Arnold House)	T. Ward, Esq.	5	1 0	32 ⅄	30·63	200
Kirkham (Weeton)	J. Bradley, Esq.	10	1 0	95 T	35·97	...
ɒ Whalley (Sabden)	J. H. Calvert, Esq. ...	5	2 6	500	41·94	190
ɒ Eccleston (Elswick Lodge)	S. King, Esq.	10	1 4	55 T	33·02	191
,, (,, ,,)	,, ,, ,, ...	5	1 0	55 T	33·23	...
ɒ Stonyhurst College	Rev. S. J. Perry, F.R.S.	11	1 0	376 ⅄	42·27	195
,, ,, ...	,, ,, ,,	11	2 0	377 ⅄	42·06	197
,, ,, ...M	,, ,, ,,	11	1 0	376 ⅄	43·28	...
Preston W. Works Knowle Green	H. Reah, Esq.	8	1 2	400 T	41·54	...
Preston W. Works Loud-scales	,, ,, ...	8	1 2	400 T	45·22	...
Preston W. Works Spade Mill	,, ,, ...	8	1 2	400 T	42·26	...
Preston W. Works Jeffrey Hill	,, ,, ...	8	1 2	900 T	49·30	...
St. Michael's-on-Wyre .....M	Rev. P. J. Hornby	5	1 0	26 ⅄	34·09	...
ɒ ,, ,, ,, ...	,, ,, ,, ..	5	1 0	26 ⅄	34·73	194

DIVISION VIII.—NORTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	LANCASHIRE—(*con.*)						
D	Beaton Fell (Barnsfold)	J. J. Myres, Esq.	5	1 6	506 T	39·27	192
	,, (,,) ....M	,, ,, ,,	5	1 6	506 T	39·09	...
D	Garstang (Calder Mount)	C. Wilson, Esq.	5	10 0	120 T	38·35	197
	Clitheroe (Downham Hall)	R. Assheton, Esq.	10	1 6	464 ⅄	35·44	...
D	Garstang (Vale House)	J. Jackson, Jun., Esq.	6	4 3	455 ⅄	36·11	188
	,, (Barnacre Reservoir)	J. Bradley, Esq.	10	1 0	617 ⅄	43·58	...
	,, (Grizedale)	,, ,, ,,	10	1 0	519 T	39·70	...
	Galgate	S.M.Satterthwaite,Esq.	5	4 6	120	37·42	...
D	Wyresdale (Abbeystead)	A. Creer, Esq., C.E.	8	1 0	366 T	43·14	181
	,, (Old Gauge Basin)	,, ,, ,,	8	1 0	963 T	41·40	...
	Quernmore (Brow Top)	,, ,, ,,	8	1 0	552 T	39·40	...
D	Lancaster (Southfield)	W. Roper, Esq.	12	3 6	114 ⅄	38·45	193
	,, (Escowbeck, Caton)	A. Greg, Esq.	12	2 0	150 T	38·25	128
	Hest Bank	T. Ransome, Esq.	5	2 0	58 T	36·58	192
D	Wray	Rev. C. L. Reynolds	5	1 1	165 T	44·23	196
	Melling (Hornby Castle)	J. Jowett, Esq.	8	1 8	100 T	34·83	128
	Barrow-in-Furness	W. Fergusson, Esq.	11	1 6	36 ⅄	34·64	199
D	,, ,, ,, (Cavendish Pk)	W. S. Whitworth, Esq.	8	1 0	60 ⅄	32·94	182
	Arkholme (Storr's Hall)	F. F. Pearson, Esq.	5	1 0	220 T	38·55	...
D	Ulverston (Urswick)	Rev. R. B. Billinge	5	2 6	...	39·86	205
	Cartmel (Flookburgh)	T. R. Croasdale, Esq.	5	2 7	70 B	36·48	126
†	,, (Holker)	Mr. W. Fox	8	4 8	155 ⅄	41·92	191
	Grange (Nutwood)	Rev. E. Massie	5	2 6	100 B	40·61	204
	Ulverston (Swarthdale)	Dr. E. Lister	5	0 10	110 T	46·97	188
D	,, (Poaka Beck)	Mr. W. Fergusson	11	1 6	512 ⅄	46·01	217
D	Cartmel (Pit Farm)	Mr. W. R. Nash	5	1 0	122 T	44·53	212
D	,, (Broughton Hall)	Col. Ainsworth	5	2 8	210 T	48·00	204
	Ulverston (Colton)	Rev. A. Christopherson	5	1 0	226 ⅄	51·59	191
D	Blawith	Rev. J. Ashburner	5	0 10	...	57·60	210
D	Broughton (Woodland Rectory)	Rev. E. C. Shawfield	5	1 4	100 T	54·31	178
	Coniston (Torver Rectory)	Rev. T. Ellwood	5	0 6	400 T	64·41	...
	†Monk Coniston Park ....M	V. Marshall, Esq.	10	4 11	150 ⅄	67·80	...
D	,, ,, ,,	,, ,, ,,	5	1 0	305	81·82	215
	WEST RIDING.						
	Sheffield (Brincliffe Rise)	A. W. Chadburn, Esq.	5	1 0	500 T	27·43	190
	,, (The Edge)	M. S. & L. R. Co.	9	3 6	336 T	28·63	184
†	,, (Redmires)	J. Gunson, Esq.	10	5 0	1100 T	37·18	199
	,, (,,) ..... *weekly*	,, ,,	8	4 0	1100 T	36·51	...
D	,, (Tylecote, Ranmoor)	J. Dixon, Esq.	10	3 6	610 ⅄	32·51	175
D	,, (Broomhall Park)	D. Doncaster, Esq.	10	2 0	330 ⅄	27·58	194
	,, (Rivelin)	J. Gunson, Esq.	10	4 0	564 ⅄	31·42	177
	,, (,,) ..... *weekly*	,, ,, ,,	8	4 0	564 ⅄	31·42	...
	,, (Crookes)	,, ,, ,,	10	2 0	629 ⅄	26·02	187

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WEST RIDING—(*con.*)						
Sheffield (Crookes)..... *weekly*	J. Gunson, Esq.....	8	2 0	629 ⩛	26·07	...
D ,, (Weston Park)	E. Howarth, Esq.	8	1 0	430 ⩛	25·50	179
D†Rotherham (Ulley Reservoir) ...	Mr. L. Berry	5	1 0	184 ⩛	16·17	133
†Sheffield (Victoria Station)	M. S. & L. R. Co.	9	3 6	188 T	23·51	158
,, (Tinsley Locks)	,, ,, ,, ...	9	...	143 T	20·17	166
Tickhill (Sandbeck Park)...	Mr. G. Summers.....	8	1 0	150 T	19·84	148
†Rotherham (Moorgate Grove) ...	R. Chrimes, Esq.	5	1 0	262 ⩛	19·91	138
,, (Thrybergh)	B.S.Brundell, Esq., C.E.	8	1 0	184 ⩛	18·53	132
D Tickhill	G. G. Phillips, Esq. ...	8	1 0	61 ⩛	18·13	167
D Sheffield (Chapeltown)	Mr. D. Bell.....	8	5 0	582 L	23·78	175
Doncaster (Firsby).....	B.S.Brundell, Esq., C.E.	8	1 3	189 ⩛	24·10	127
D Bolsterstone (Waldershaigh) ...	C. M. Wilson, Esq.....	8	3 1	950 T	29·03	185
Elsecar	M. S. & L. R. Co.	9	...	175 T	22·37	141
D Wath-upon-Dearne (Chapel St).	Dr. Burman	8	1 0	185 ⩛	20·78	167
D ,, (West Melton)	W. Jackson, Esq.	6	0 9	172 T	20 69	112
D ,, ...	J. N. Baxter, Esq.....	5	1 0	100 ⩛	21·10	141
Worsborough	M. S. & L. R. Co.	9	...	225 T	20·07	154
D Stainborough(Wentworth Castle)	W. Fisher, Esq.....	8	2 6	520 T	23·34	169
Doncaster	M. S. & L. R. Co.	9	...	35 T	15·78	142
D ,, (Magdalens)	Mr. J. Howorth	5	5 9	46 T	17·68	134
†Dunford Bridge Station	M. S. & L. R. Co.	9	3 6	954 T	40·93	179
D† ,, ,, (Reservoir).....	Mr. G. Whitfield	12	2 0	1100 T	43·51	209
†Penistone (Carlcotes).....	M. S. & L. R. Co.	9	3 6	1075 T	38·98	166
† ,, ...	,, ,, ,, ...	9	3 6	717 T	33·31	166
,, (Hazlehead)	,, ,, ,, ...	9	...	868 T	44·97	187
,, (Ingbirchworth Res.)..	J. H. Taylor, Esq. C.E.	8	3 0	850 ⩛	33·69	200
Holmbridge (Batley Waterworks)	J.F.Bateman, Esq. F.R.S.	...	...	917	?60·50	...
D Barnsley (Church Street).....	Dr. Sadler	5	5 2	350 ⩛	21·38	169
,, ...	J. H. Taylor, Esq. C.E.	8	15 0	350 ⩛	19·74	167
,, ...	M. S. & L. R. Co.	9	...	175 T	16·73	158
Saddleworth Station	E. B. Smith, Esq., C.E	9	4 6	610 T	33·18	...
Strinesdale [Oldham]	J.F.Bateman, Esq. F.R.S	5	4 0	815 T	32·55	...
†Meltham (Harden Moss)	J. Stanway, Esq.	8	1 2	1200 T	39·58	...
Standedge (Red Brook).....	E. B. Smith, Esq., C.E.	9	1 6	1100 ⩛	38·25	...
Denshaw.....	J.F.Bateman, Esq. F.R.S	5	4 0	961 T	39·66	...
D Meltham (Harewood Lodge).....	C. L. Brook, Esq.	8	4 8	514 L	34·16	186
† ,, Grange	J. Stanway, Esq.	8	1 2	925 T	37·86	...
Doncaster (Hatfield).....	Mr. T. Askren	5	5 4	...	14·17	134
,, (Kirk Bramwith).....	B.S.Brundell, Esq. C.E.	5	1 0	17 ⩛	17·21	132
D ,, (Burghwallis Rec.)...	Rev. F. W. Peel.....	5	1 0	80 T	18·78	157
,, (,, ,,)M	,, ,, ,, ...	5	1 0	80 T	18·25	...
D Slaithwaite (Blackmoorfoot).....	J. Stanway, Esq.	8	1 0	800 T	34·30	192
D Honley (Northgate House)	Miss E. Brooke	5	1 0	350 T	35·73	210
Huddersfield (Bank Field, Golcar)	J. E. Ramsden, Esq....	5	1 0	400 T	36·15	182
,, Cemetery	J. Firth, Esq.....	12	1 0	400 T	27·99	183
D† ,, (Dalton)	J. W. Robson, Esq. ...	8	1 0	350 ⩛	25·91	173
Longwood (Bilberry Edge)	J. Stanway, Esq.	8	1 2	1100 T	33·57	...
D Mirfield (Cote Wall)	E. B. W. Balme, Esq..	8	0 9	200	23·74	169

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground ft.	in.	Rain Gauge. Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
WEST RIDING—(*con.*)							
Ackworth School	A. C. Davies, Esq.	5	1	6	135 T	18·93	...
D†Wakefield Prison	Dr. H. Clarke	8	1	0	96 ⅄	20·79	170
,, (Alverthorpe Hall)	H. Clarkson, Esq.	5	1	0	150 T	21·05	150
D Rastrick	A. Clay, Esq.	5	1	3	410 T	27·02	141
D Wakefield (Stanley Vicarage)	Rev. R. Burrell	5	1	0	100 T	17·48	165
,, (Field Head)	R. Porter, Esq.	8	1	0	150 T	18·46	153
D Goole	W.E.H.Grayburne Esq.	5	1	0	18 T	16·95	151
,, (Tillage Works)	Mr. J. Harrison	5	1	0	19	18·44	136
D†Todmorden (Stansfield Hall)	J. Fielden, Esq.	8	1	9	584 T	42·06	191
Halifax (Bents, Norland)	J. S. Rawson, Esq.	5	0	8	800 T	34·68	...
D ,, (Bermerside Observatory)	J. Gledhill, Esq.	8	0	6	500	32·71	170
,, (Thorpe)	J. S. Rawson, Esq.	8	0	8	345 T	41·64	...
D ,, (,,)	,, ,,	5	0	8	345 T	41·66	212
,, (,,) M	,, ,,	8	0	8	345 T	41·64	...
† ,, (Albert)	J. A. Paskin, Esq., C.E.	5	1	0	795 T	36·64	...
† ,, (Gibbet)	,, ,, ,,	5	6	0	568 T	33·38	...
† ,, (Ramsden Wood)	,, ,, ,,	8	1	2	816 T	39·71	...
Leeds (Methley Park)	J. Richardson, Esq. C.E.	5	0	9	98	21·44	111
,, (Leventhorpe Hall)	J. T. Leather, Esq., C.E.	10	4	0	94 ⅄	19·04	...
Halifax (Castle Carr)	J. A. Paskin, Esq., C.E.	...	...		1060 T	36·27	...
† ,, (Midgley Moor)	,, ,, ,,	7	0	6	1350 T	44·17	...
† ,, (Warley Moor)	,, ,, ,,	7	0	6	1425 T	41·85	...
† ,, (Ogden)	,, ,, ,,	8	1	3	990 T	43·36	...
,, (Ovenden)	,, ,, ,,	..	...		1375	40·37	...
,, (Widdop)	,, ,, ,,	...	...		1050	43·14	...
† ,, (Walshaw Dean)	,, ,, ,,	8	0	3	1380 T	40·92	...
D South Milford Rectory	Rev. F. J. Young	5	1	4	60 T	17·99	170
Leeds (Wortley Res.)	E. Filliter, Esq., C.E.	8	0	9	307 ⅄	26·47	156
Bradford (Queensbury)	R. J. Foster, Esq.	8	2	2	1050 ⅄	35·83	144
,, (Brayshaw Reservoir)	A. R. Binnie, Esq., C.E.	5	1	0	982 ⅄	33·92	172
,, (The Exchange)	J. McLandsborough, Esq	8	65	6	395 ⅄	27·66	204
,, (Farcliffe)	E. Milnes, Esq.	5	1	0	575 T	31·91	158
,, (Thornton Moor Res.) M	A. R. Binnie, Esq., C.E.	5	1	0	1176 ⅄	26·87	...
,, (Stubden) *old gauge*	,, ,, ,,	8	1	0	1075 ⅄	46·13	222
,, (,,)	,, ,, ,,	5	1	0	1071 ⅄	45·28	222
,, (Brown Royd Res.)	,, ,, ,,	5	1	0	385 T	26·84	167
,, (Nan's Scar) M	,, ,, ,,	5	1	0	1101 T	23·14	...
,, (Stairs) M	,, ,, ,,	5	1	0	1401 ⅄	44·35	...
,, (Leeming Res.) M	,, ,, ,,	5	1	0	850 ⅄	34·30	...
,, (Doe Park) *old gauge*	,, ,, ,,	8	1	0	810 ⅄	41·26	214
,, (,, ,,)	,, ,, ,,	5	1	0	811 ⅄	40·12	214
,, (Chellow Dean)	,, ,, ,,	5	1	0	645 ⅄	31·28	152
,, (Hewenden Reservoir)	,, ,, ,,	5	1	0	701 ⅄	34·52	186
,, (,, ,,) *old g.*	,, ,, ,,	5	1	0	700 T	36·89	186
,, (Heaton Res.) *old gauge*	,, ,, ,,	8	1	0	530 ⅄	30·12	147
,, (,, ,,)	,, ,, ,,	5	1	0	531 ⅄	30·11	147
†Leeds (Holbeck)	J. Marshall, Esq.	10	32	0	127 ⅄	21·02	174
D ,, (,,)	,, ,, ,,	5	1	8	95 ⅄	21·61	174

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground		Height Above Sea Level	Depth of Rain. 1884	Days on which 01 or more fell.
			ft.	in.	feet.	inches.	
WEST RIDING—(*con.*)							
Leeds (Holbeck W. Works Depot)	E. Filliter, Esq., C.E.	8	0	9	93 ⊼	23·12	161
,, (Philosophical Hall)	*Registrar Gen. Ret.*	...		...	137	22·97	166
,, (Woodhouse Moor)	E. Filliter, Esq., C.E.	8	0	9	307 ⊼	23·41	163
D ,, (,, Cliff)	R. Reynolds, Esq.	5	1	0	330	23·54	165
,, (Elmete Hall, Roundhay)	J. Kitson, Esq.	5	1	3	400 T	23·47	177
,, (Weetwood Reservoir)	E. Filliter, Esq., C.E.	8	0	9	328 ⊼	23·62	162
D ,, (,, Hall)	S. A. Marshall, Esq.	5	0	7	400 ⊼	25·52	177
Shipley (Moor Head)	G. Knowles, Esq.	8	10	0	500	24·45	...
D Leeds (Allerton Hill)	T. Fenwick, Esq., C.E.	5	0	7	418 ⊼	23·15	171
D ,, (Oliver Hill, Horsforth)	C. France, Esq.	3	0	9	250 T	26·77	219
D ,, (Crag Hill, Horsforth)	J. Fox, Esq., C.E.	5	1	0	350 ⊼	24·88	190
D ,, (Moortown)	G. Paul, Esq.	5	1	0	500 T	25·50	174
D Shipley (Esholt Vic.)	Rev. J. Myddleton Evans	8	1	2	150	26·29	183
Leeds (Eccup South)	E. Filliter, Esq., C.E.	8	0	9	395 T	23·89	171
†Bingley (Sunnydale)	A. R. Binnie, Esq., C.E.	5	1	0	975 T	33·03	189
Guiseley (Tranfield Lodge)	Mr. J. Phizackerley	5	8	0	475 L	24·52	142
Skipton (Rye Croft, Crosshills)	G. Parkinson, Esq.	8	1	0	405 ⊼	40·08	157
Harewood (Arthington)	E. Filliter, Esq., C.E.	8	0	9	139 ⊼	26·69	165
Skipton (Gill Grange, Silsden) M	A. R. Binnie, Esq., C.E.	5	1	0	883 T	28·43	...
†Ilkley (Cherry Bank)	H. Richardson, Esq.	8	1	3	620	36·41	...
,, (Myddelton Lodge)	Mr. W. Scales	5	1	0	500	36·78	...
Skipton (Silsden Reservoir)	A. R. Binnie, Esq., C.E.	5	1	0	560 ⊼	29·65	168
D Thornton-in-Craven	The late T. Wilson, Esq.	5	5	4	456 ⊼	35·99	187
Slaidburn (Hareden Brook)	H. Reah, Esq.,	8	1	2	540	66·92	...
,, (Langden Brook)	,, ,,	8	1	2	556	65·64	...
,, (Whiteholme)	W. K. Wilkinson, Esq.	5	1	3	475 T	48·25	132
Skipton (Cringle's Reservoir)	A. R. Binnie, Esq., C.E.	5	1	0	760 T	29·82	168
,, (Counter Hill) M	,, ,, ,,	5	1	0	951 T	30·03	...
,, (Chelker Reservoir) M	,, ,, ,,	5	1	0	730 ⊼	34·52	...
,, (*Craven Herald* Office)	E. Townsend, Esq.	8	0	8	360	35·73	185
Slaidburn (Dunsop Houses)	J. B. McCallum Esq., C.E.	8	1	0	450 T	55·64	176
,, (Middle Knoll)	,, ,, ,,	8	2	6	1298 ⊼	52·60	...
,, (Brennand)	,, ,, ,,	8	1	0	820 ⊼	58·40	182
,, (Whitendale)	,, ,, ,,	8	1	0	830 ⊼	59·63	179
,, (Cabin Hill)	,, ,, ,,	8	3	1	1559 ⊼	56·20	...
,, (Baxton Fell)	,, ,, ,,	8	2	6	1540 ⊼	45·40	...
York (Phil. Soc. Gardens)	The Meteor. Council	8	1	9	53 ⊼	19·67	168
,, (,, ,, ,,)	,, ,, ,,	8	1	9	53 T	19·76	166
,, (Cherry Hill)	H. Richardson, Esq.	5	1	6	60 T	19·47	...
Wetherby (Ribston)	Mr. Jones	5	1	2	130 ⊼	23·14	...
D Harrogate	Mr. J. H. Wilson	5		...	...	29·11	192
Skipton (Barden Res.) *old g.*	A. R. Binnie, Esq., C.E.	8	1	0	746 ⊼	40·44	183
,, (,, ,,)	,, ,, ,,	5	1	0	746 ⊼	45·56	182
Otterburn-in-Craven	W. Gomersall, Esq.	5	1	0	510 ⊼	40·62	148
Skipton (Upper Res., Barden)	A. R. Binnie, Esq., C.E.	5	1	0	1250 ⊼	36·71	177
,, (Thorpe Fell, ,,) M	,, ,, ,,	5	1	0	1661 ⊼	35·24	...
,, (Sandbed Beck Burnsall) M	,, ,, ,,	5	1	0	676 ⊼	37·13	...
D Settle (Duke Street)	Mr. T. Green, Junr.	5	2	6	483 T	46·25	188

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
WEST RIDING—(*con.*)							
Pateley Bdg (Grimwith Res) *oldg*	A. R. Binnie, Esq., C.E.	8	1	0	890 ⅄	44·24	206
,, ,, (,, ,,)	,, ,, ,,	5	1	0	893 ⅄	43·70	206
,, ,, (,, Trunla Hill) M	,, ,, ,,	5	1	0	1201 ⅄	38·77	...
Boroughbridge (Aldborough)	Rev. R. W. Marriott	5	2	2	80 T	24·46	...
D Malham Tarn	Mr. Coulthard	5	1	0	1296 ⅄	55·67	244
Settle (Austwick Hall)	T. R. Clapham, Esq.	12	4	0	547 ⅄	38·45	...
,, (Clapham)	Rev. M. T. Farrer	8	5	7	565 T	39·71	201
†Ripon (The Red House)	F. D. Wise, Esq.	5	1	0	120	23·17	...
D Ingleton (Halsteads)	R. Chapman, Esq.	9	2	0	414 T	44·23	199
D Arncliffe	Ven. Archdeacon Boyd	8	1	6	750 T	58·82	221
D Ripon (High Bank, Mickley)	Miss Harrison	5	1	0	225 T	27·99	159
D† Sedbergh (Brig Flatts)	J. Handley, Esq.	5	1	0	300 T	45·83	205
D ,, (Long Lane)	J. Dockeray, Esq.	5	4	4	420 T	49 94	206
† ,, (Thorns Hall)	Miss Sedgwick	5	1	0	400 T	44·27	197
EAST RIDING.							
Patrington (Spurn Head)	The Meteor. Council	8	1	0	27	13·57	144
D ,,	W. B. Pugh, Esq.	5	3	0	46 ⅄	17·39	146
Hull (Nelholme, Ferriby)	W. R. King, Esq.	5	3	0	125	16·60	...
,, (Alexandra Dock)	A.C. Hurtzig, Esq., C.E.	5	1	3	19 ⅄	17·66	141
D† ,, (Beverley Road)	H. Smith, Esq.	8	4	6	11 T	19·26	173
D ,, (Derringham)	W. Lawton, Esq.	5	2	2	10 ⅄	18·11	167
D ,, (People's Park)	Mr. E. Peak	5	0	6	6	19·03	168
D Brough (Brantinghamthorpe)	Mr. R. C. Kingston	5	1	6	200 T	20·91	115
D Cottingham	J. H. Hill, Esq.	8	1	3	26 T	18·05	197
Beverley (Alexandra Terrace)	T. Dyson, Esq.	12	7	0	62 ⅄	18·79	153
D ,, (Leconfield)	Rev. S. Gray	5	2	6	32 ?	16·86	124
D Market Weighton (Dalton Hall)	Mr. J. Allsop	8	1	4	150	19 04	147
D Holme-on-the-Wolds	Mrs. Harland	5	4	0	154 ⅄	17·95	106
D Hornsea (East Gate House)	J. A. Wade, Esq.	5	3	0	40 ?	16·06	...
Middleton-on-the-Wolds	Rev. H. D. Blanchard	5	1	0	150 T	20·87	160
D Pocklington (Warter)	J. Coxon, Esq.	5	1	10	230 T	20·88	164
Catton Rectory [York]	Rev. H. L. Puxley	4	0	8	50	19·55	...
D Driffield (Beverley Road)	Rev. J. T. Harwood	8	8	0	68 T	18·40	171
Wetwang	Rev. E. M. Cole	5	1	0	235 T	23·24	154
D Thixendale	Rev. W. H. Fox	10	0	9	425 T	25·54	184
Lowthorpe (The Elms)	H. Onslow Piercy, Esq.	5	1	0	63 ⅄	19·14	166
D Hunmanby (Foxholes Rectory)	Rev. R. H. Foord	5	1	0	234 T	23·61	187
,, (Wold Newton)	Rev. T. S. Ackland	5	1	6	194	38·95	205
Ganton Hall [Scarborough]	Mr. J. Shields	5	1	0	200 T	22·25	167
NORTH RIDING.							
†Malton	H. Hurtley, Esq.	10	1	0	75 T	20·75	...
D Melmerby (Baldersby)	W. Gregson, Esq.	5	1	0	101 T	26·31	158
D Thirsk (Sowerby)	C. M. Swarbreck, Esq.	5	1	0	105 T	25·18	187
D ,, (,,)	A. C. Bamlett, Esq.	5	1	0	118	24·70	139
D Masham (Burton House)	T. Carter, Esq.	6	1	0	269 T	29·35	209
Helmsley	R. Bruce Low, Esq., M.D.	5	1	3	185 ⅄	25·64	177

DIVISION IX.—YORKSHIRE—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea level feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
NORTH RIDING—(*con.*)							
D Bedale (Thorpe Perrow)	Mr. W. Culverwell ...	5	1	6	170	23·89	151
Aysgarth (Nell Bank, Walden)..	Rev. F. W. Stow	3	1	0	1075 T	46·14	...
Hawes Junction.....	The Meteor. Council ...	8	1	0	1135	61·21	230
Aysgarth Vicarage.....	Rev. F. W. Stow	8	1	0	659 ⅄	40·31	192
,, ,, ...M	,, ,, ,, ...	12	2	0	645 T	40·56	...
Leyburn (Wensley)	G. W. Wray, Esq.....	7	1	0	660 T	33·28	...
Scarborough (Osgodby).....	E. Filliter, Esq., C.E...	8	0	9	159 T	19·93	123
,, (Westborough).....	A. Rowntree, Esq.....	8	1	0	130	21·36	182
Hambleton Hills (High Paradise)	A. C. Bamlett, Esq. ...	5	1	0	1050	23·15	125
D†Hawes (Hardrow Vicarage)	Rev. R. Pinck.....	5	1	0	790 ⅄	45·10	211
,, (Shaw Paddock, Lunds)...	,, ,, ...	5	1	0	1100	57·15	...
*Northallerton	J. Hodgson, Esq.	5	1	3	133 ⅄	24·03	...
Catterick (Tunstall)	J. Marshall, Esq.	5	1	0	275	23·82	...
FylingdalesMoor(Harw'daleMill)	E. Filliter, Esq., C.E..	8	0	9	275 T	23·26	151
Richmond (The Grove)	G. Roper, Esq.	5	1	3	...	31·28	...
Northallerton (Rounton Grange).	The Royal Meteor. Soc.	8	1	0	250	20·42	180
Ingleby Manor	The Hon. H. Sidney ...	5	0	11	440 T	26 84	137
,, Greenhow Vicarage.....	Rev. J. Hawell	5	1	0	448 T	26·95	...
D East Layton [Darlington]	Mrs. Maynard	5	1	0	575 T	24·96	142
D Richmond (Forcett Park).....	J. Michell, Esq.	5	1	0	360 T	23·52	168
Whitby (Guisborough Road) ...	M. Simpson, Esq.	5	2	0	184 ⅄	17·78	153
Saltburn (Port Mulgrave)	J. Hodgson, Esq.	5	4	6	350 T	17·74	146
Guisborough (Hutton Hall)	SirJ.W.Pease,Bt.,M.P.	5	1	6	400 T	24·16	171
D ,, (Lockwood Beck Res.)	W. I'Anson, Esq., C.E.	8	1	0	632 ⅄	23·90	172
D Middlesboro' (Southfield Villas).	W. Fallows, Esq.	5	1	0	21 T	15·74	103
D Saltburn (Skelton Reservoir) .	W. I'Anson, Esq., C.E.	8	1	0	325 ⅄	18·27	154
D†Mickleton [Middleton]	G.J.Symons,Esq.F.R.S	8	1	0	775 T	35·97	161
† ,, (Lime Kiln Pasture)M	,, ,, ,, ...	8	1	0	1175 T	36·60	...
,, (,, ,, ,,)M	,, ,, ,, ...	8	1	0	1175 T	37·90	...
Redcar (High Cliffe, Coatham)..	Rev. J. E. Leefe	5	1	4	...	16·00	...

DIVISION X—NORTHERN COUNTIES.

DURHAM.							
Darlington (Dinsdale Rectory)...	Rev. J. W. Smith	5	1	6	54 T	22·85	135
D† ,, (South End)	Mr. N. Black	8	0	10	140	20·49	158
D† ,, (Cleveland Parade)..	S. Hare, Esq.....	5	1	0	160 T	20·60	166
D ,, (Brinkburn)	Mr. H. Waud	8	1	6	165 T	22·07	...
D Barnard Castle (Whorlton)	Miss Dodgson	5	0	11	424 T	24·71	133
D†Staindrop (Raby Castle)	Mr. J. Tullett.....	8	0	8	460 T	24·83	153
D Hartlepool (Heugh Lighthouse)..	W. Belk, Esq., C.E. ...	5	0	6	34 ⅄	19·50	186
,, (Hurworth Burn) ...	T. Fenwick, Esq., C.E.	5	0	7	360	18·96	...
D ,, (Hart Reservoir).....	,, ,, ,, ...	8	0	9	164	17·91	107
D†Wolsingham	Mr. A. Mitchell	5	1	0	464 ⅄	29·88	195
Thornley Vicarage.....	Rev. W. Mayor	5	1	0	475 ⅄	21·88	182
Tow Law (The Manse)	H. P. Slade, Esq.	4	5	3	1020 T	27·32	...
D Durham (Ushaw College)	Rev. J. Corbishley.....	5	0	10	600 ⅄	24·09	198
D Seaham Harbour	G. H. Aird, Esq.	8	1	9	60 ⅄	20·79	171

DIVISION X.—NORTHERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground.	Height Above Sea level	Depth of Rain. 1884	Days on which '01 or more fell.
				ft. in.	feet.	inches.	
	DURHAM—(*con.*)						
	Seaham Vicarage	Rev. A. Bethune	5	0 6	80 T	22·12	...
	,, Hall	Mr. R. Draper	5	1 0	100 R	22·53	...
	Houghton-le-Spring (Myre Hall)	D. Balfour, Esq., C.E	5	1 0	261 T	21·65	145
D	Shotley Bridge	Mr. J. Coulson	5	0 6	345 T	27·26	157
D	Chester-le-Street (Birtley)	R. C. Clephan, Esq.	5	0 9	205 R	21·58	177
	Sunderland (W. Hendon House)	T. W. Backhouse, Esq.	5	1 0	132 R	19·12	...
	,, (,, ,, ,,)	,, ,, ,,	5	1 0	132 R	19·27	...
	,, (The Limes)	J. W. Mounsey, Esq.	5	1 0	120 T	18·61	...
D	,, (Fever Hospital)	Dr. A. E. Harris	8	0 8	109 T	19·33	151
	South Shields (Borough Hospital)	J. R. Boyce, Esq.	5	1 0	90 T	22·01	176
	NORTHUMBERLAND.						
	†Allenheads	Mr. J. Charlton	8	0 4	1353 R	42·94	...
D	Haltwhistle (Shaft Hill)	Mr. R. Hetherington	5	0 8	626 T	38·27	170
D	,, (Unthank Hall)	Rev. Dixon Brown	5	0 9	380 T	38·42	207
D	Haydon Bridge (Ridley)	Rev. G. Reed	5	2 8	340 T	25·40	163
	Wylam (Holeyn Hall)	Col. Woods	5	1 0	...	21·52	129
D	Newcastle (Clifton Road)	R. Foster, Esq.	8	1 6	314 R	20·14	155
	,, (,, ,,)	,, ,, ,,	5	...	314	20·95	...
D	,, (Osborne Road)	T. G. Hurst, Esq.	5	0 9	170 T	20·40	132
	,, (Philos. Society)	W. Lyall, Esq.	8	1 5	105 T	20·62	...
	,, (Portland Road)	Mr. T. Bone	4	9 6	...	20·96	140
	,, (Gladstone Terrace)	W. Smurthwaite, Esq.	2	6 0	150 T	21·31	127
D	,, (Town Moor)	Mr. W. Neill	5	0 6	201 R	22·34	181
D	,, (Denton Burn)	Mr. J. J. Ross	5	1 0	203 T	21·82	162
D	,, (Wellburn, Jesmond)	W. H. Holmes, Esq.	5	1 0	161 T	22·89	160
D	Haydon Bridge	T. J. Bewick, Esq., C.E.	8	1 0	291 R	28·72	179
	North Shields (Wallsend)	The late J. W. Dees, Esq.	10	0 6	100 R	22·53	...
	,, (Post Office)	The Meteor. Council	8	1 4	100	18·77	179
D†	,, (Rosella Place)	R. Spence, Esq.	8	1 0	124 R	19·31	166
	,, (Low Lights)	J. R. Procter, Esq.	8	3 4	22 R	20·01	...
D	,, (Tynemouth)	P. J. Messent, Esq., C.E.	5	2 8	65 R	18·67	175
	,, (Clementhorpe)	J. R. Procter, Esq.	5	1 0	150 R	20·08	160
	,, (Billy Mill Res.)	A. L. Forster, Esq.	5	0 6	197 R	16·21	...
D	,, (Monkseaton)	T. Green, Esq.	5	4 0	132 T	19·89	131
	Stamfordham	The late Rev. J. F. Bigge	5	1 0	400 T	23·29	...
	Bingfield House	J. Coppin, Esq.	5	1 0	445 T	24·04	...
Newcastle and Gateshead W. Works	Whittle Dean	G. Smith, Esq.	10	...	...	23·15	...
	Swinburn (Woodford)	,, ,, ,,	10	0 6	500 R	25·07	...
	North Tyne (Green Crag)	,, ,, ,,	10	0 6	800 R	25·68	...
	,, ,, Valley	,, ,, ,,	10	0 6	300	26·65	...
	Hallington	,, ,, ,,	10	0 6	469 R	25·59	...
	,, (Fawcett)	,, ,, ,,	10	0 6	563 R	23·31	...
	Gunnerton Burn (Camphill)	,, ,, ,,	10	0 6	676 R	24·79	...
	Cramlington	The Roy. Meteor. Soc.	5	1 1	256	22·76	181
D	Morpeth (Meldon Park)	Mr. J. Finlay	5	1 0	...	25·13	168
	,, (Bothalhaugh Garden)	Hon. & Rev. W. C. Ellis	5	0 10	35 ?	22·69	181
	,, (,, Lawn)	,, ,, ,,	5	0 10	135	22·19	190

DIVISION X.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
NORTHUMBERLAND—(*con.*)						
Morpeth (Bothalhaugh Lawn) M	Hon. & Rev. W. C. Ellis	5	0 10	135	20·24	...
Rothbury (Brenckburn Priory) ..	C. H. Cadogan, Esq. ...	8	1 0	200 T	24·59	114
D Felton	T. J. Murday, Esq. ...	5	1 6	240 ?	24·85	179
,, ...	,, ,, ,, ...	5	1 6	240 ?	24·92	...
D Rothbury (Whitton Tower)	Rev. Dr. Ainger.....	5	1 0	410 T	28·43	173
,, (Cragside)	Sir W. G. Armstrong, CB	8	1 0	400 ⅄	30·03	134
D Alwinton (Harbottle Castle) ...	Mr. R. Elliott	5	1 6	500	29·07	139
D ,, (Biddleston)	Mr. P. Dodds	5	1 0	820 T	30·30	176
D Howick Hall	Rt. Hon. Earl Grey, K.G.	8	0 10	121 ⅄	22·71	168
Ilderton (Lilburn Tower)	E. J. Collingwood, Esq.	10	6 0	300 T	27·73	...
Cheviot (Broadstruther) .....M	G. P. Hughes, Esq. ...	8	4 0	1692 ⅄	45·00	.
Bamburgh	Mr. W. C. Good	5	1 0	75 L	22·15	182
D Pawston [Coldstream]	B. P. Selby, Esq.	8	1 0	328 T	25·40	190
*Wooler (Milfield)	G. A. Grey, Esq.	5	0 8	200 ⅄	22·00	...
Belford (Middleton Hall)	J. T. Leather, Esq., C.E.	10	3 0	240 ⅄	22·52	...
CUMBERLAND.						
Ravenglass (The Grove)	J. Ross, Esq.	5	2 6	80 ⅄	39·14	127
Braystones	J. D. Watson, Esq. ...	10	3 6	36 T	36·59	...
Sprinkling Tarn .....M	Mr. E. Wilson	4	0 6	1985 T	114·06	...
Wastdale Head .....M	,, ,, ,, ...	4	0 6	204 T	80·30	...
Stychead Tarn .....M	,, ,, ,, ...	4	0 6	1472 T	119·45	...
†The Stye .....M	,, ,, ,, ...	4	0 6	1077 T	173·74	...
† ,, ...	,, ,, ,, ...	8	1 0	1077 T	184·75	...
Gable Hawes ....M	,, ,, ,, ...	8	...	1077 T	76·45	...
St. Bees (Abbot's Court)	A. Hodgetts, Esq.	5	1 1	20 L	38·64	199
†Seathwaite .....M	Mr. Dixon	4	0 6	422 T	139·03	...
D† ,, ...	,, ,, ...	5	1 0	423 T	136·43	228
† ,, ...	The Roy. Meteor. Society	5	1 0	422 T	134·10	230
*† ,, ...	John Marshall, Esq. ...	5	1 0	420 T	132·48	...
Ullscarf .....M	G. H. Hill, Esq., C.E..	7	1 0	2100 T	115·50	...
D Whitehaven (The Flosh, Cleator)	D. Ainsworth, Esq. M.P.	5	1 11	208 T	46·38	174
D†Wythburn Vicarage	Rev. Basil R. Lawson..	5	1 0	574 T	99·81	154
†Helvellyn (Birkside) .....M	G. H. Hill, Esq., C.E..	7	1 0	1900 T	75·90	...
†Wythburn .....M	,, ,, ,, ...	7	1 0	580 T	88·10	...
Rosthwaite (Castle Lodge) ...M	G. J. Symons, Esq., FRS.	8	1 0	305 T	114·00	...
†Watendlath ....M	,, ,, ...	8	1 0	867 T	85·00	...
Armboth.....	G. H. Hill, Esq., C.E..	7	1 0	550 T	77·80	...
,, Fells (The Pewitts) ...	,, ,, ,, ...	7	1 0	1650 T	82·90	...
Helvellyn (Whiteside)	,, ,, ,, ...	7	1 0	2100 T	65·00	...
†Whitehaven (Irish Street)	Dr. I'Anson	5	1 1	21 ⅄	40·81	158
D†Keswick (Barrow House)	Miss E. G. Langton ...	8	0 6	282 ⅄	72·20	211
Loweswater (Waterend)	Mrs. Jackson	5	1 0	432 T	54·77	193
†Ullswater (Hallsteads)	A. Marshall, Esq.	10	4 0	490 T	54·20	...
D†Keswick (Deer Close)	John Marshall, Esq. ..	7	1 9	300 T	63·57	222
D† ,, (Derwent Island) ...*old*	,, ,, ,,	5	0 7	280 T	52·46	220
D ,, (,, ,,) ...*new*	,, ,, ,,	5	...	...	60·12	220
D† ,, (Post Office)	J. F. Crosthwaite, Esq.	8	6 4	270 T	68·52	207

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
CUMBERLAND –(*con.*)							
D Keswick (Post Office)	J. F. Crosthwaite, Esq.	5	1	0	265	64·34	207
D† ,, (Shu-le-crow)	Miss Mitchell	8	2	6	296 T	59·17	205
Whitehaven (Gilgarron Hall)	Mr. D. Galloway	5	4	9	470 T	48·62	189
D ,, (Distington)	Baldwin Latham Esq CE	5	1	0	...	37·26	164
D Cockermouth (Whinfell Hall)	W. Robinson, Esq.	5	2	0	265 ⅄	55·24	239
D ,, (Brandlingill)	Capt. F. R. Sewell	5	1	0	320 T	60·08	229
† Threlkeld Rectory	Rev. J. Brunskill	5	4	0	488 T	46·10	154
† ,, (Settra)	,, ,, ,,	5	1	0	840 T	52·00	...
† ,, (Blencathra)	,, ,, ,,	5	1	0	1400 T	78·02	...
D†Bassenthwaite (Mirehouse)	H. A. Spedding, Esq.	5	0	6	310 T	51·66	211
Brigham (Scaur Close)	L. Wilson, Esq.	5	1	0	122 T	44·25	...
D†Cockermouth (Higham)	T. A. Hoskins, Esq.	5	1	0	478 ⅄	47·66	210
D ,, (Broughton Grange)	G. S. Wilson, Esq.	5	1	3	209 ⅄	42·12	220
Penrith (Skirsgill Park)	Capt. Gandy	...	...		...	33·85	178
† ,, (Fell Lane, Fir Bank)	T. Lester, Esq.	5	1	0	575 T	31·89	165
D ,, (Edenhall Vicarage)	B. W. Lovejoy, Esq.	5	1	4	310 T	30·17	209
D ,, (,, The Luham)	G. Varty Smith, Esq.	5	1	1	270 T	30·45	196
D† ,, (Newton Reigny)	T. G. Benn, Esq.	8	1	0	580 ⅄	37·62	201
D†Blencowe School	T. Fawcett, Esq.	8	0	9	601 B	41·43	206
Maryport (Netherhall)	H. P. Senhouse, Esq.	8	0	6	27 ⅄	41·90	178
D Hesket Newmarket	Mr. J. Wilson	5	1	0	600 T	46·69	199
Aspatria (Brayton Hall)	Mr. J. Hammond	8	1	6	220	30·05	...
D ,, (Brookfield)	M. Lidbetter, Esq.	5	0	9	124 ⅄	36·84	212
D†Alston (Love Lady Shield)	T. W. Dickinson, Esq.	5	1	0	1145 ⅄	47·68	235
Carlisle (Wreay Vicarage)	Rev. T. Lees	5	2	0	310 T	30·77	229
D Silloth Rectory	Rev. F. Redford	8	3	0	28 ⅄	37·23	190
D†Carlisle (Cemetery)	I. Cartmell, Esq.	8	3	0	114 ⅄	30·84	155
D ,, (Rose Hill)	C. Lonsdale, Esq.	8	1	0	102 ⅄	30·91	183
D† ,, (Scaleby Hall)	R. A. Allison, Esq.	5	1	0	112 ⅄	30·43	197
Stapleton	The Roy. Meteor. Soc.	5	1	0	400	41·24	221
Kirkandrews-on-Esk Rectory	Rev. F. Taylor	5	0	6	100 ⅄	35·36	...
WESTMORELAND.							
D Kirkby Lonsdale (Casterton)	R. A. Clarke, Esq.	8	1	0	305 ⅄	43·41	205
,, ,, (Biggins House)	Miss Tomlinson	12	3	6	400 T	43·24	...
,, ,, (Whelprigg)	J. Gibson, Esq.	5	2	0	475 ⅄	39·42	186
D Kendal (Kent Terrace)	R. J. Nelson, Esq.	5	1	6	146 T	44·47	179
,, (Underfell)	F. Wilson, Esq.	8	3	7	300 B	43·08	176
,, (,,)	,, ,,	8	1	0	300 B	46·85	176
D ,, (Hawesmead)	G. Braithwaite, jun. Esq.	8	0	6	175 ⅄	44·96	223
D Bowness (Fallbarrow)	Rev. A. Rawson	8	1	0	...	55·11	211
D Elterwater (Woodlands)	E. Tucker, junr., Esq.	5	0	9	244 ⅄	88·86	222
,, (Lingmoor) M	,, ,, ,,	8	1	0	1485 B	101·93	...
D†Ambleside (Nook Cottage)	Mr. E. Hird	5	1	0	227 ⅄	74·98	237
† ,, (Lesketh Howe)	F. M. T. Jones, Esq.	5	2	6	175 T	82·61	224
D†Grasmere (High Close)	E. B. W. Balme, Esq.	8	0	9	553	79·22	218
D Ravenstonedale (Brownber)	J. Fothergill, Esq.	5	3	0	826 T	38·93	190

DIVISION X.—NORTHERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell.
			ft in.	feet.	inches.	
WESTMORELAND—(*con.*)						
Orton Vicarage	Rev. E. Holme	5	3 6	770 T	55·55	161
ɒ†Kirkby Stephen	T. Mason, Esq.	5	1 0	574 T	38·70	188
†Shap (Sleddale) M	Mr. W. Hoggarth	5	1 0	1560 T	81·80	...
† ,, (Swindale) M	,, ,,	5	1 0	1610 T	94·25	...
†Haweswater (Mardale Green). M	G. J. Symons, Esq., FRS	5	1 0	780 T	99·80	...
† ,, (,, ,,) M	,, ,, ,,	8	1 0	780 T	80·75	...
†Shap (Tailbert Beck) M	Mr. W. Hoggarth	5	1 0	900 T	69·55	...
ɒ† ,, (Copy Hill)	,, ,, ,,	5	1 0	852 ⅄	58·05	203
ɒ†Patterdale Hall	Mr. D. Taylor	7	1 3	490 T	90·12	192
† ,, (Greenside Mine)	Mr. T. Taylor	7	1 6	1000 T	107·69	...
ɒ†Crosby Ravensworth (Reagill)	Mr. Wilkinson	8	0 6	890 T	42·88	139
ɒ†Appleby	Dr. Armstrong	5	1 0	442 ⅄	31·48	194
Ullswater (Swarth Fell) M	G. J. Symons Esq. F.R.S.	8	1 0	1000 T	58·38	...
,, (Sharrow Bay) M	A. Parkin, Esq.	5	0 7	500 T	51·45	...
,, (,, ,,) M	,, ,, ,,	8	1 6	500 T	48·00	...
Lowther Castle [Penrith]	Mr. F. Clarke	8	3 6	750 T	36·24	126
ɒ Brougham Hall [Penrith]	Mr. A. Lodge	5	5 5	470	37·08	223
ɒ Milburn	Miss Robinson	5	1 0	644 T	30·91	194

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS.

MONMOUTH.						
ɒ Newport (Gold Tops)	T. Dyne Steel, Esq, C.E.	8	1 0	90 T	40·48	190
ɒ Chepstow (Shirenewton Hall)	E. J. Lowe, Esq., F.R.S.	8	0 6	530 T	41·29	186
ɒ Llanfrechfa Grange	F. J. Mitchell, Esq.	5	4 0	326 ⅄	38·38	159
Tredunnock	Rev. C. T. Salusbury	5	2 3	170 ⅄	36·73	160
ɒ Chepstow (The Mount)	H. A. Smith, Esq.	5	1 0	150	37·25	177
ɒ ,, (Piercefield Park)	H. Clay, Esq.	5	1 6	300 ?	36·33	176
Pontypool (Llanthewy Vach Rec.)	Rev. J. E. J. Machen	5	2 3	200 T	42·22	156
ɒ Newport (Llangibby Castle)	D. Lawrence, Esq.	8	3 0	190 T	36·32	156
Blaenavon (Gas Works)	C. White, Esq.	5	0 9	980 T	55·19	164
ɒ Tredegar (Bedwellty House)	J. Colquhoun, Esq.	8	1 0	972 ⅄	64·37	197
ɒ ,, (The Willows)	G. A. Brown, Esq.	8	1 0	1024 T	56·98	183
ɒ Ebbw Vale (The Firs)	R. S. Jordan, Esq.	5	1 0	1060 ⅄	59·21	190
ɒ Abergavenny (Larchfield)	Dr. Glendinning	5	1 0	240 B	35·23	163
,, (Dyne House)	S. H. Steel, Esq.	5	1 2	210	38·13	168
ɒ Llantilio Court	Sir H. M. Jackson, Bt.	5	0 11	207 ⅄	33·81	144
ɒ Monmouth (Pentwyn)	Rev. J. T. Harding	5	1 0	191 B	29·71	149
GLAMORGAN.						
* Cowbridge (The Ham)	G. W. Nicholl, Esq.	8	1 3	96 T	34·86	151
Cardiff (Cogan Pill, Landough)	J. A. B. Williams, Esq CE	5	1 0	122 ⅄	36·73	160
,, (East Moors)	T. Waring, Esq., C.E.	5	1 0	24 L	34·26	152
ɒ ,, Castle	Mr. A. Pettigrew	5	1 0	38 ⅄	36·04	166
,, (Park Place)	W. Adams, Esq., C.E.	5	1 0	43 ⅄	37·25	...
Cowbridge (Ash Hall)	D. Owen, Esq.	8	1 0	315 ⅄	44·84	193

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above SeaLevel feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
GLAMORGAN—(*con.*)							
D Cardiff (Ely)	J.A.B.Williams,EsqCE	8	1	0	53 ⅄	41·89	181
D† ,, (Pentyrch)	F. G. Evans, Esq.	5	1	0	100 T	42·71	179
,, (Lisvane)	J.A.B.Williams,EsqCE	5	1	0	136 ⅄	38·34	185
D Caerphilly (Aber-tri-dwr)	G.A.Lundie, Esq., C.E.	5	1	0	471 T	60·41	191
D Swansea (Sketty)	T. T. Wood, Esq.	5	1	6	280	49·94	195
D ,, (South Dock Lock)	R. Capper, Esq.	12	14	9	40	44·43	198
D Neath	E.C. Pole, Esq.	5	1	0	204 ⅄	52·28	183
D ,, (Morriston)	E. Rice Morgan, Esq.	5	1	0	89	52·66	198
† ,, (Glyncorrwg)	T. F. Brown, Esq.	5	4	6	717	87·00	192
D Aberdare (Mardy)	W. T. Lewis, Esq.,C.E.	5	2	2	431 ⅄	58·12	214
D† ,, (Abernant)	Evan Jones, Esq.	5	5	3	430	54·31	184
D Felindre (Lliw Reservoir)	R.H.Wyrill,Esq.,C.E.	8	1	6	426 T	55·77	189
D Ystalyfera	Dr. D. Thomas	8	1	2	250 L	69·28	197
,, (Tan-yr-allt)	D. H. Lewis, Esq.	8	1	6	300 L	67·46	193
CARMARTHEN.							
Llanelly Water Works	G. Watkeys, Esq.	13	4	0	216 ⅄	42·46	193
Tegfynydd [Narberth]	H. S. Morgan, Esq.	5	1	0	158 ⅄	50·32	145
D†Carmarthen (Joint Co. Asylum)	Dr. Hearder	8	1	0	189 ⅄	51·75	208
Llandilo (Dynevor Castle)	Rt. Hon. Lord Dynevor	8	1	0	236 T	?54·15	208
D Llandovery	J. Watkins, Esq.	5	1	0	217 T	52·94	223
PEMBROKE.							
Pembroke (Stackpole Court)	Rt.Hon. Earl of Cawdor	5	1	8	60 T	40·30	175
,, (St. Ann's Head)	The Meteor. Council	8	0	8	150	34·19	209
D Haverfordwest (Picton Castle)	Mr. J. Dumble	5	1	0	100	40·93	204
D Narberth Rectory	Rev. W. Wilson	8	1	4	...	47·48	200
D*Haverfordwest (High Street)	E. P. Phillips, Esq.	5	1	0	95 T	43·60	190
D Fishguard (Castle Hill)	W. D. Wathen, Esq.	5	0	10	200 B	43·20	182
D Llechryd (Castle Malgwyn)	Mr. H. Howard	5	1	0	...	44·95	196
CARDIGAN.							
D Aberayron (Dolaeron)	T. H. Maddy, Esq.	5	1	11	50	36·75	185
D Aberystwith (Gogerddan)	Sir Pryse Pryse, Bt.	5	1	0	80 B	42·47	192
D ,, (Cwmsymlog)	Capt. Garland	5	2	6	800	51·83	187
BRECKNOCK.							
D†Nanthir Reservoir [Aberdare]	T. L. Edwards, Esq.	5	1	0	860 ⅄	58·46	220
† ,, ,, [,,] M	,, ,, ,,	5	1	0	860 ⅄	58·88	...
Brecknock (Cantreff Rect.)	Rev. J. J. Evans	5	0	8	550 ?	50·23	...
D ,,	J. Kirk, Esq.	5	2	0	437 ⅄	38·74	153
D Trecastle (Llywel Vic.)	Rev. T. Jones	5	1	0	600 ?	52·83	189
D Brecknock (Llandefaelog-fach)	Rev. W. Williams	5	1	1	637	38·28	207
D Builth (Llanwrtyd Wells)	Mr. H. Jones	5	1	0	800	58·25	194
D ,, (Abergwessin Vic.)	Rev. J. Jones	5	1	0	1003 L	63·21	238
D Newbridge (Llysdinam)	Mrs. Lister Venables	8	1	0	600 B	41·52	197
RADNOR.							
D Llanstephan	Mr. J. Winfield	5	1	0	394	35·34	164

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
RADNOR—(*con.*)						
Old Radnor (Walton Court)	L. T. Turner, Esq. ...	5	1 0	700	33·31	...
D Llandrindod Wells (Brynarlais)	Dr. W. B. Davies	5	1 0	700 B	36·39	199
D Rhayader (Nantgwillt)	R. L. Lloyd, Esq.	5	1 0	767 B	59·94	202
MONTGOMERY.						
Llangurig (Esgair Clochfan)	G. J. Symons, Esq., FRS	5	1 2	1330	70·00	...
† ,, (Ystrad-olwyn-fawr) ...M	Mr. J. Jones	8	1 0	950	50·60	...
†Llanidloes (Dolenog)	Miss Roberts	5	1 6	550	?31·93	...
D ,, (Broomcliffe)	E. Powell, Esq.	5	1 0	650 T	46·54	204
,, (,,)	,, ,, ,, ...	5	1 0	650 T	48·23	...
D Newtown (Dolfor)	W. B. Pugh, Esq.	5	0 3	1027 T	37·12	199
D Churchstoke (Mellington Hall)	P. Wright, Esq.	5	1 6	540 ⅄	28·04	156
,, (,, ,,)M	,, ,, ,, ...	5	1 6	540 ⅄	27·92	...
D Carno (Llanwnog)	Rev. D. Parry	5	3 5	...	34·07	178
Montgomery	Rev. F. W. Parker ...	5	1 0	550 T	26·78	...
D†Carno (Tybrith)	Miss Marsh	5	1 0	595 T	46·39	208
D Welshpool (Buttington Vic.)	Rev. R. J. Roberts ...	5	1 0	300 T	29·00	192
D†Garthbibio (Rhos-y-perfedd)	G. J. Symons, Esq., FRS.	8	1 2	792	57·48	186
,, (Bwlch Tomlyd)	,, ,, ,, ...	5	1 2	1370	81·70	...
D†Llanwddyn (Daffrn-newydd)	,, ,, ,, ...	8	1 0	750 B	45·05	132
† ,, (Cefn-glas)	,, ,, ,, ...	8	1 0	1650	63·00	...
FLINT						
† Mold (Bryn Alyn)	Rev. R. B. Cooke	5	1 2	483 ⅄	29·16	...
† Flint (Soughton Hall, Northop)	J. Scott Bankes, Esq...	5	0 8	418	28·16	178
St. Asaph (Nantllys)	P. P. Pennant, Esq. ...	5	1 0	173 ⅄	26·42	...
D†Halkyn	Capt. Williams	5	1 3	895 ⅄	28·06	162
D Holywell (Bagillt)	A. O. Walker, Esq. ...	5	1 6	20 T	25·72	171
D Rhyl (Sedgley House)	W. T. Girdlestone, Esq.	5	2 6	21 ⅄	22·74	148
Prestatyn (Nant)	T. G. Dixon, Esq.	5	1 2	30 ?	25·59	187
DENBIGH.						
D Chirk (Brynkinalt)	Rt. Hon. Lord Trevor..	5	0 6	...	30·26	119
,, (Cefn-y-Wern)	T. E. Tatton, Esq.	5	1 0	415	29·51	...
D Ruabon (Wynnstay)	Mr. Middleton	12	3 0	484 T	27·62	171
D Llangollen (Plas Berwyn)	Major Tottenham	5	0 5	440	40·78	159
Wrexham (Pack Saddle Res.)	F. W. Storr, Esq.	5	0 9	370 ⅄	27·50	165
,, (Cae Llwyd Res.)	,, ,, ,, ...	8	0 9	918 ⅄	35·50	140
,, (,, ,, ,,)	,, ,, ,, ...	5	...	918 ⅄	35·18	141
,, (Plas Power)	F. G. Tippinge, Esq. ...	5	1 0	472 ⅄	30·62	166
D Rosset (Trevalyn Hall)	Capt. Griffith Boscawen.	5	1 0	58 ⅄	24·04	171
Denbigh (Vale Street)	J. Lloyd Roberts, Esq..	5	1 0	230 ⅄	29·27	135
,, (Dyffryn Aled)	P. W. Yorke, Esq.	5	1 2	650 T	37·77	173
D Llangerniew (Hafodunos)	Mr. J. McNair	5	1 0	512 T	44·27	204
†Nannerch (Penbedw Hall)	Mr. W. McMurray ...	8	0 6	650 T	32·17	177
Denbigh (Garn)	W. D. W. Griffith, Esq.	5	0 10	457 T	28·19	195
D Eglwys-Fach (Bodnant)	C. Ashby, Esq.	8	2 6	102 ⅄	33·32	124
Colwyn Bay (Nant-y-Glyn)	A. O. Walker, Esq. ...	5	1 6	180 ⅄	28·76	178
,, (Bryn Euryn)	Mr. T. Hutchings	5	1 0	125 T	28·35	175

DIVISION XI.—MONMOUTH, WALES, AND THE ISLANDS—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Sea Level in.	feet.	Depth of Rain. 1884 inches.	Days on which ·01 or more fell.
MERIONETH.							
†Dolgelly (National School)	Mr. Williams	5	1	6	43 T	56·37	192
† ,, (Brithdir)	J. Hill, Esq.	5	1	6	465 T	61·95	...
Trawsfynydd	Major Mathew	5	0	7	700	65·37	177
Bala (Henblas)	,, ,,	5	1	0	544	47·11	166
D Llanderfel (Palé Gardens)	Mr. T. Ruddy	8	1	0	606 ⅄	48·11	205
D Corwen (Rhug Gardens)	Mr. J. Bennett	5	1	0	500	34·27	151
CARNARVON.							
Pwllheli (Bodfaen)	Major Mathew	5	5	0	80	42·32	179
*Llanystumdwy (Talarvor)	,, ,,	5	3	0	50	37·60	177
D†*Port Madoc	,, ,,	5	3	0	10	50·32	184
*Llangybi (Cefn)	,, ,,	5	1	1	200	46·93	182
Llandwrog (Glynllivan Park)	Hon. F. G. Wynn	5	1	0	80?	47·52	...
,, (,, Garden)	,, ,,	5	1	0	160	54·09	...
,, (,, Fort)	,, ,,	8	1	0	170	44·02	...
Pen-y-gwryd	Mr. H. Owen	8	1	0	880	107·00	185
Carnarvon (Cocksidia)	Major Mathew	5	1	0	120	34·46	196
Dinorwic Quarry	,, ,,	5	4	0	850	62·74	190
D Llanbedr-y-Cennin (Llyndulyn)	T. T. Marks, Esq., C.E.	8	1	6	1622 L	100·55	182
Llanfairfechan	R. Luck, Esq.	5	0	8	150 B	33·64	137
D†Llandudno (Warwick House)	Dr. Nicol	8	0	8	99 ⅄	27·09	169
ANGLESEA.							
LlanerchymeddLlwydiarthEsgob	T. Prichard, Esq.	5	1	0	112 L	34·91	190
Bodewryd (Rhosybol)	Rev. D. Morgan	5	1	6	170	35·14	154
ISLE OF MAN.							
Calf of Man (Chicken's Rock)	Bd. of Northern Lights	...	...		...	19·15	...
Castletown (Langness)	,, ,, ,,	...	...		...	27·36	...
,,	A. W. Moore, Esq.	5	0	9	30	32·85	197
Port Erin	,, ,, ,,	5	0	9	30 T	30·06	166
St. Mark's	,, ,, ,,	5	0	9	400	36·14	172
D Douglas (Derby Square)	P. Killey, Esq.	5	1	1	78	35·92	198
D ,, (Victoria Road)	H. Story, Esq.	8	1	0	120 L	38·96	190
,, (Cronkbourne)	A. W. Moore, Esq.	8	0	10	138 ⅄	40·26	199
,, (Clypse, Onchan)	,, ,,	8	1	0	439 T	40·38	...
D Andreas	Rev. F. Lamothe	5	0	6	72 T	31·74	161
Point of Ayre	Bd. of Northern Lights	...	...		...	25·63	156
ISLES OF SCILLY.							
St. Mary's	The Meteor. Council	8	1	6	77 L	29·22	219
JERSEY.							
St. Aubins (Noirmont)	The Meteor. Council	8	1	0	270	33·11	190
D ,, School	J. E. Vibert, Esq.	8	1	0	140 B	32·70	167
,, ,,	,, ,, ,,	8	18	4	155	29·34	...
GUERNSEY.							
D Guernsey (Buen Retiro)	A. Collenette, Esq.	5	1	0	270 L	35·78	213
,, (,, ,,)	,, ,, ,,	5	1	0	270 L	36·42	...
,, (Villa Carey)	Dr. Carey	8	1	9	180	31·37	...

SCOTLAND.

DIVISION XII.—SOUTHERN COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
WIGTON.						
Mull of Galloway	Bd. of Northern Lights	...	...	...	29·12	...
D Garliestown (Galloway Ho.)	Mr. J. Day	5	4 6	20 ?	42·30	192
D Stoneykirk (Ardwell House)	M. J. Stewart, Esq.	8	0 9	125	36·02	142
Corsewall	Bd. of Northern Lights	...	3 4	22 ?	40·19	151
KIRKCUDBRIGHT.						
Little Ross	Bd. of Northern Lights	...	3 3	130 ?	24·36	123
St. Mary's Isle	The late Earl of Selkirk	...	...	...	57·85	...
Auchencairn (Torr House)	W. Ovens, Esq.	5	0 8	30	48·82	...
Dalbeattie (Colvend Manse)	Rev. J. Fraser	5	1 6	120 T	38·69	...
Twynholm (Cally)	A. Buchan, Esq.	5	1 0	140	55·28	...
*Dalbeattie (Station Road)	Mr. W. McBride	5	0 5	50 ?	54·42	168
D Cargen [Dumfries]	P. Dudgeon, Esq.	5	0 4	80 ⅄	43·85	190
Irongray (Drum Park)	D. J. Kay, Esq.	3	0 6	230	64·05	...
DUMFRIES.						
D Annan (Kinmount)	Mr. R. Elliot	8	3 0	140 ⅄	41·73	173
D Mouswald (Free Ch. Manse)	Miss E. M. Brown	5	1 0	...	38·76	193
D Dumfries (Crichton Inst.)	Mr. A. Bruce	8	0 6	159 T	38·40	182
Canobie (Byreburnfoot)	W. Doughty, Esq.	3	0 9	160	42·25	...
Langholm (Westwater)	Mr. W. Elliot	5	2 0	550 T	55·65	...
,, (Ewes School)	J. C. Little, Esq.	3	0 6	445 T	59·80	...
,, (,, Burnfoot)	,, ,,	3	0 6	541 ⅄	55·91	...
Durrisdeer (Drumlanrig Castle)	Mr. D. Thomson	3	0 6	191	54·40	...
,, (Tudhope)	J. C. Little, Esq.	3	0 6	1961 ⅄	70·50	...
Moffat (Ericstane)	J. J. Welsh, Esq.	...	...	550	61·70	...
ROXBURGH.						
New Castleton (The Flatt)	J. Elliot, Esq.	3	0 9	350 T	46·10	...
,, ,, (Kirndean)	Miss Elliot	3	0 9	400 T	49·10	...
Hawick (Wolflee)	Sir W. Elliot, Bt., F.R.S.	5	0 6	601	43·49	...
,, (Branxholme)	W. E. Lockhart, Esq.	5	0 2	451 ⅄	36·21	...
,, (Kirkton)	Mr. J. Welsh	3	0 6	759 ⅄	39·70	...
*Jedburgh (Sunnyside)	G. Hilson, Esq.	5	6 0	351 ⅄	26·93	128
D St. Boswell's (Elliston)	The Hon. G. Dalrymple	5	0 9	356 B	29·61	168

DIVISION XII.—SOUTHERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	ROXBURGH—(*con.*)						
	Kelso (Springwood Park)	Mr. W. Chaplin	10	1 0	130 L	23·39	158
D	Melrose (Asylum)	Dr. Grierson	5	0 6	480 T	30·67	212
D	,, (Abbey Gate)	Mr. A. Dodds	5	0 6	280 T	35·67	232

DIVISION XIII.—SOUTH EASTERN COUNTIES.

	SELKIRK.						
	Borthwickbrae [Hawick]	W. E. Lockhart, Esq.	8	0 2	800	43·30	...
	Selkirk (Bowhill)	Mr. G. Brown	9	11 0	537	30·64	...
D	,, (The Hangingshaw)	Miss Johnstone	5	0 3	670	34·76	188
	Galashiels (Abbotsford Rd.)	Dr. Somerville	5	0 6	416 T	37·60	200
	PEEBLES.						
	Innerleithen (The Glen)	A. Buchan, Esq.	...	...	...	47·12	...
	Glenrath (Manor)	Mr. S. Linton	5	1 2	764 ⅄	44·51	...
	Peebles (Stobo Castle)	A. Buchan, Esq.	...	...	600	36·20	...
	Innerleithen	Mr. R. Mathison	5	1 0	474 ⅄	39·23	...
	Eddlestone (Portmore Res.)	W. H. Cameron, Esq.	11	0 6	1000	40·28	185
	Cairnmuir	A. Buchan, Esq.	...	...	...	35·33	...
D	N. Esk Reservoir [Penicuick]	Mr. J. Garnock	11	0 6	1150 ⅄	38·00	175
	BERWICK.						
D	Coldstream (The Hirsel)	Mr. Cairns	3	0 7	75 ⅄	21·07	150
D	Marchmont House	Mr. P. Loney	5	1 0	500 T	28·73	213
	Berwick (Paxton House)	A. Buchan, Esq.	...	...	...	27·51	...
	Dunse (Clouds)	C. Watson, Esq.	8	0 8	500 T	26·10	...
	St. Abb's Head	Bd. of Northern Lights	...	...	...	19·51	135
	HADDINGTON.						
D	Haddington (Asylum)	J. Mowat, Esq.	5	1 0	238 T	24·84	213
D	East Linton	Mr. J. Storie	3	0 3	90 T	19·45	141
	Prestonkirk (Smeaton)	A. Buchan, Esq.	...	...	100	21·61	...
	Drem (Craigielaw)	,, ,,	5	...	...	20·40	...
	EDINBURGH.						
	Moorfoot Hills (Bowbate)	W. H. Cameron, Esq.	...	...	...	47·05	...
	,, ,, (Gladhouse Res.)	,, ,, ,,	11	0 6	900	37·35	193
	Pentland Hills (Crosswood)	,, ,, ,,	11	0 6	950	39·80	...
	Penicuick (Edgelaw Res.)	,, ,, ,,	11	0 6	654	30·75	145
	Pentland Hills (Harper Rig)	,, ,, ,,	11	0 6	900	34·60	...
	,, ,, (Harehill)	,, ,, ,,	11	0 6	1470	50·40	...
	,, ,, (Loganlea)	,, ,, ,,	11	0 6	850	43·40	...
	West Calder (Addiewell)	J. Fyfe, Esq.	...	...	...	37·32	...
	Rosewell Asylum	A. Buchan, Esq.	5	0 6	695	32·14	...
	Pentland Hills (Glencorse Res.)	W. H. Cameron, Esq.	11	0 6	787	36·96	138
	,, ,, (Harlaw)	,, ,, ,,	11	0 6	800	36·30	...

DIVISION XIII.—SOUTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	in.	Height Above Sea Level feet.	Depth of Rain. 1884 inches.	Days on which .01 or more fell.
EDINBURGH—(*con.*)							
Pentland Hills (Clubbiedean Res.)	W. H. Cameron, Esq.	11	0	6	750	39·50	127
,, ,, (Harbour Hill) ...	,, ,, ,, ...	11	0	6	1112	37·55	...
†Dalkeith	A. Buchan, Esq.	4	0	4	183	21·84	...
Colinton (Fernielaw)	J. Leslie, Esq., C.E. ...	11	0	6	500	32·20	...
D Gilmerton Station	Mr. J. J. Bell	5	0	6	240	27·28	165
Liberton (Alnwick Hill Res.) ...	W. H. Cameron, Esq...	...	...		400	29·66	130
Edinburgh (Charlotte Square) ...	J. Leslie, Esq., C.E. ...	11	0	6	230	24·66	...
,, (,, ,,) ...	,, ,, ...	12	63	0	300	18·10	...
,, (Cumin Place)	A. Buchan, Esq.	5	1	0	162	27·25	...
,, (Streatham Ho.)	,, ,, ...	...	...		...	26·40	...
Leith	The Meteor. Council ...	8	1	8	22	23·50	182
,, (Navigation School)	A. Buchan, Esq.	...	...		70	26·29	..
LINLITHGOW.							
Bathgate	J. Fyfe, Esq.	...	...		...	30·23	...
Linlithgow (Rockville)	A. Buchan, Esq.	5	0	5	260	34·42	...

DIVISION XIV.—SOUTH WESTERN COUNTIES.

LANARK.							
Biggar (Wiston)	Mr. W. Core	3	0	6	860 T	45·60	...
D Douglas (Newmains)	Mr. J. Russell	3	0	4	783 ⅄	47·25	183
D Biggar (Cambus Wallace)	Captain Paul	6	0	6	748 ⅄	31·29	186
Lanark (Ridge Park)	The late C. Lindsay, Esq.	5	0	4	634 ⅄	35·83	181
Dalzell House	J G C Hamilton, Esq, M P	6	5	3	89 T	31·34	133
D Hamilton Water Works	Mr. R. Watson	7	1	0	425 T	42·70	. .
,, (Bothwell Castle)	Mr. A. Turnbull	10	18	0	146 T	33·74	169
†Cambuslang (Bushy Hill)	Dr. Muirhead	5	1	0	146 ⅄	39·11	209
D Coatbridge (Lochwood)	E. Gibb, Esq.	7	0	4	290 B	34·90	156
,, (,,) *Snowdon*	,, ,, ...	5	1	0	290 B	38·89	...
D Airdrie (Hillend Reservoir)	Mr. W. Ritchie	6	4	6	620 ⅄	39·22	195
Glasgow Observatory	Prof. Grant, F.R.S. ...	11	1	9	180	43·95	224
AYR.							
Ballantrae (Glendrishaig)	P. Murdoch, Esq.	5	1	0	320	47·06	...
Barrhill (Dochroyle)	Mr. J. Scott	6	0	9	550 T	55·90	...
D Colmonell	R. Aitken, Esq.	6	0	6	100 T	51·00	189
D Girvan (Pinmore)	Hugh Hamilton, Esq...	5	1	0	187 ⅄	57·91	215
,, (Turnberry)	Bd. of Northern Lights	...	...		...	30·97	190
D Ayr (Cassillis)	Miss Anstruther	5	0	6	220	44·61	201
,, (Auchinlee)	J. Drennan, Esq.	6	4	0	36 T	39·55	...
D Old Cumnock	Mr. J. Ballantine	5	1	0	380 ⅄	49·56	207
Kilmarnock (North Craig)	J. M. Gale, Esq., C.E..	12	0	6	310	40·97	...
Ardrossan	The Meteor. Council ...	8	1	0	10	38·33	222
D ,, (Kirkhall)	H. F. Weir, Esq.	8	3	0	106 ⅄	40·27	188
Dalry (Blair Park)	J. Wilson, Esq., C.E...	4	0	2	710	69·60	204
D ,, (Carsehead)	A. B. Aitken, Esq.	5	1	1	160 T	50·87	221

DIVISION XIV.—SOUTH WESTERN COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which 01 or more fell.
				ft. in.	feet.	inches.	
	AYR—(*con.*)						
	Paisley W.W. (Camphill)	R. Sharp, Esq.	12	...	600	71·80	203
	Shaws W. Works (Kelly Dam)	J. Wilson, Esq., C.E.	6	1 0	640 ?	73·30	...
	RENFREW.						
	Lochwinnoch (Castle Semple)	Mr. W. Thorburn	7	30 0	240	52·34	238
Gorbals's Dist.	Ryat Lynn	J. M. Gale, Esq., C.E.	8	0 5	310	55·10	...
Gorbals's Dist.	Waulk Glen	,, ,, ,,	12	0 5	280	51·80	...
Gorbals's Dist.	Middleton	,, ,, ,,	12	0 5	550	62·85	...
Gorbals's Dist.	Nither Cairn	,, ,, ,,	...	...	700	64·90	...
Paisley W. Works	Stanely	R. Sharp, Esq.	12	1 0	190	50·61	...
Paisley W. Works	Back Thornleymuir	,, ,,	12	1 0	646	61·41	...
Paisley W. Works	Muirhead	,, ,,	12	1 0	482 ⅄	63·88	...
Paisley W. Works	Springside	,, ,,	12	1 0	532 ⅄	68·41	...
D	Glasgow (Queen's Park)	Mr. D. McLellan	8	0 9	144 ⅄	40·54	174
	Paisley (Ferguslie House)	Mr. McLean	3	1 0	86 ⅄	49·22	...
Shaws Water Works.	Green Water	J. Wilson, Esq., C.E.	6	1 0	788 ⅄	76·00	...
Shaws Water Works.	Garvocks	,, ,, ,,	6	1 0	631 ⅄	74·90	...
Shaws Water Works.	Glenbrae	,, ,, ,,	6	0 9	574 ⅄	71·80	...
Shaws Water Works.	Mansfield	,, ,, ,,	5	1 0	573 ⅄	81·59	250
Shaws Water Works.	Compensation Reservoir	,, ,, ,,	6	1 0	600	75·60	198
Shaws Water Works.	Loch Thom	,, ,, ,,	5	1 0	643 ⅄	79·62	256
Shaws Water Works.	Shielhill	,, ,, ,,	6	0 9	962 ⅄	75·10	...
Shaws Water Works.	Darndaff Moor	,, ,, ,,	6	1 0	840	74·40	...
Shaws Water Works.	Spango Burn	,, ,, ,,	6	0 9	757 ⅄	74·90	...
Shaws Water Works.	D Hole Glen	,, ,, ,,	5	1 0	603	78·10	229
Shaws Water Works.	Prospect Hill	,, ,, ,,	5	1 0	200	75·37	218
	Port Glasgow (Dougliehill Res.)	,, ,, ,,	5	1 3	549 ⅄	67·75	204
	,, ,, (Auchendores Res)	,, ,, ,,	5	1 3	321 ⅄	60·99	203

DIVISION XV.—WEST MIDLAND COUNTIES.

	DUMBARTON.						
	New Kilpatrick (Chesters)	J. Kennedy, Esq.	6	0 6	240 T	48·90	...
D	Dumbarton (Leven Shipyard)	Messrs. Denny, Bros.	5	1 0	9	55·73	191
	Helensburgh (Lyleston)	Forrest Frew, Esq.	6	0 4	120	56·65	...
	,, (Water Works)	Mr. T. Murray	6	0 3	296 ⅄	64·03	227
	Arrochar	Rev. J. Dewar	5	0 9	10	100·97	...
	STIRLING.						
	Strathblane (Mugdock Reservoir)	J. M. Gale, Esq., C.E.	8	0 6	320	59·60	...
	Falkirk (Kerse)	A. Brown, Esq.	8	1 0	...	35·40	...
D	Killearn (Old Ballikinrain)	Mr. J. Smith	5	0 6	265	68·56	216
	Stirling (Polmaise Gardens)	Mr. W. W. Ritchie	6	1 0	12	43·00	...
	Kippen	P. J. Muirhead, Esq.	5	1 6	255 T	52·53	141
	,, (Boquhan)	A. Buchan, Esq.	...	..	...	49·74	...
	Ben Lomond	J. M. Gale, Esq, C.E.	...	...	1800	95·10	...

DIVISION XV.—WEST MIDLAND COUNTIES—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	BUTE.						
	Arran (Pladda)	Bd. of Northern Lights	...	3 3	55 ?	49·64	159
	Holy Island (Lamlash)	,, ,, ,,	...	...	...	41·60	130
	Rothesay (Mount Stuart)	J. Kay, Esq.	3	2 6	100 ⅄	52·20	...
D	,, (Barone Cottage)	,, ,,	5	1 0	116 ⅄	53·64	227
	ARGYLL—(MAINLAND.)						
D	Holy Loch (Rosmor)	W. R. W. Smith, Esq.	5	0 8	25 ?	89·37	230
	Ardrishaig	A. Buchan, Esq.	...	...	...	77·81	...
	Lock Eck (Benmore)	J. Duncan, Esq.	6	1 0	35	83·31	...
D	Lochgilphead (Kilmory) *Snowdon*	Sir J. Campbell Orde, Bt.	5	...	...	69·70	230
D	,, (Poltalloch)	Mr. J. Russell	3	4 6	65	56·10	222
	Inverary Castle	Mr. G. Taylor	6	0 6	28 T	82·60	...
D	Dalmally	Sir J. B. Lawes, Bt., FRS	5	1 0	200 ?	80·67	229
D	Oban (Craigvarren)	G. W. Brenan, Esq., C.E.	5	1 0	143	60·84	232
	,, (Dunollie Castle)	A. Buchan, Esq.	5	1 2	55	72·17	...
	Appin (Aird's)	R. Macfie, Esq.	5	0 11	41 ⅄	59·63	...
D	Strontian (Laudale)	A. Fletcher, Esq.	8	1 0	15 ⅄	99·00	255
D	,, ,,	,, ,, ,,	5	1 0	15 ⅄	101·78	255
D	Loch Sunart (Glenborrodale)	J. J. Dalgleish, Esq.	5	0 2	60 L	85·71	234
	Ardnamurchan	Bd. of Northern Lights	...	3 6	82 ?	51·99	178
D	,, (Achateny)	Mr. R. Coltart	5	0 2	61 ⅄	78·68	267
	Loch Eil (Corran)	Bd. of Northern Lights	...	0 4	14 ?	74·19	183
D	,, ,, (Conaglen)	Dow. Countess of Morton	5	0 10	...	110·89	236
	ARGYLL—(INSULAR.)						
	Cantire, Mull of	Bd. of Northern Lights	...	...	279 ?	44·07	164
	,, (Campbeltown, Devaar)	,, ,,	...	3 4	75 ?	48·54	165
	,, (Skipness Castle)	Mr. P. Maclean	6	1 6	20 L	55·90	...
D	,, (Stonefield, Tarbert)	Colin G. Campbell, Esq	3	1 3	90	83·96	246
	Islay (Rhinns)	Bd. of Northern Lights	...	3 0	74 ?	34·21	165
	,, (Lochindaul)	,, ,,	...	...	...	49·92	173
	,, (McArthurshead)	,, ,,	...	...	...	75·70	160
D*	,, (Eallabus)	J. S. R. Ballingall, Esq.	5	1 0	71 T	54·11	211
D	,, (Gruinart School House)	Mr. D. Mac Gilp	5	1 0	214 ⅄	47·20	221
	,, (Rhuvaal)	Bd. of Northern Lights	...	...	...	42·01	129
	Jura (Bay of Small Isles)	H. Evans, Esq.	...	...	...	74·40	...
	,, (Lowlandmansbay)	Bd. of Northern Lights	...	...	...	55·05	175
	,, (Fladda)	,, ,,	...	...	...	63·34	191
	Lismore (Mousedale)	,, ,,	...	3 4	37 ?	53·83	186
	Mull (Earraid)	,, ,,	...	...	...	44·98	149
D	,, (Quinish)	J. N. Forsyth, Esq.	5	0 9	35	68·67	247
	,, Sound of	Bd. of Northern Lights	...	...	...	64·90	148
	Tyree (Hynish)	,, ,,	...	...	...	60·71	205
D	Coll (The Manse)	Rev. N. MacDougall	5	1 6	100 T	55·07	179

DIVISION XVI.—EAST MIDLAND COUNTIES.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
CLACKMANNAN.						
D Tillicoultry	J. Wilson, Esq.	5	0 6	65 T	41·37	207
,, (Tillicoultry House)	Col. A. Mitchell	5	0 1	...	48·10	...
D Dollar	Mr. A. Blackwood	9	1 0	178	49·15	208
KINROSS.						
Cleish Castle	A. Buchan, Esq.	...	...	...	46·13	...
D Loch Leven Sluice	Mr. W. Clark	7	0 7	365 L	36·50	129
D Kinross (Turfhills)	G. Henderson, Esq.	5	0 6	400 ⅄	41·48	192
FIFE.						
D Dunfermline (Keavil)	L. Dalgleish, Esq.	5	0 2	150	26·67	154
D ,, (Outh)	,, ,,	5	0 2	890	29·97	118
Isle of May	Bd. of Northern Lights	...	...	...	17·94	...
Pittenweem (The Priory)	Rev. F. K. Lloyd	...	...	...	22·00	...
Kilconquhar (Balcarres)	Mr. E. Tate	5	1 0	300 T	31·78	191
Falkland (Lothrie Reservoir)	A. Buchan, Esq.	5	0 1	700	35·62	...
D Strathmiglo (Loden Urquhart)	J. Thom, Esq.	5	1 0	615 T	33·48	179
Cupar (Birkhill)	A. Buchan, Esq.	5	0 5	130	28·53	...
D St. Andrews (Newton Bank)	J. Dundas, Esq.	5	1 0	142 ⅄	27·06	180
,, (The Priory)	Major R. Jackson	3	0 8	68 T	?19·90	...
Kilmany (Mountquhanie House)	D. Gillespie, Esq.	3	1 3	240	26·90	...
PERTH.						
D Culross (West Grange)	J. J. Dalgleish, Esq.	5	0 2	116 ⅄	34·48	159
Menteith (Cardross)	H. D. Erskine, Esq.	...	1 6	...	35·00	...
Aberfoyle	J. M. Gale, Esq., C.E.	8	0 6	60	63·20	..
Dunblane (Kippendavie)	P. Stirling, Esq	...	...	...	39·95	...
,, (Kippenross)	,, ,, ,,	6	0 4	150 ⅄	39·60	...
Loch Dhu	J. M. Gale, Esq., C.E.	8	0 6	325	95·60	...
Ledard	,, ,, ,,	...	...	1500	72·00	...
Loch Drunkie	,, ,, ,,	8	0 6	420	75·90	...
,, Vennachar	,, ,, ,,	8	0 6	275	72·30	...
D Lanrick Castle	Mr. J. Begg	3	1 0	...	57·65	157
Bridge of Turk	J. M. Gale, Esq., C.E.	8	0 6	270	83·00	...
Loch Katrine (Tunnel Hill Top)	,, ,, ,,	8	0 6	830	89·50	...
Between Glen Finlas & Bed Ledi.	,, ,, ,,	8	0 6	1800	?50·70	...
Callander (Leny)	J. B. Hamilton, Esq.	3	0 4	340 T	77·20	...
Glen Gyle	J. M. Gale, Esq., C.E.	...	...	380	107·90	...
Muthill (Orchil)	A. Buchan, Esq.	...	...	...	51·20	...
D Auchterarder (Colquhalzie)	Mr. R. Morton	8	0 5	150	44·39	146
D Balquhidder (Stronvar)	J. Dickson, Esq.	5	1 0	422 T	94·30	240
Lochearnhead	A. Buchan, Esq.	...	...	...	?76·45	...
Crieff (Ochtertyre)	,, ,, ,,	3	0 9	325	47·92	...
Perth (Rosebank)	,, ,, ,,	...	...	140	31·96	...
Coupar Angus Station	Mr. J. Robertson	5	1 3	183 T	28·71	184
D Dunkeld (Inver Braan)	Rev. J. M. B. Murdoch	...	1 0	500 ?	43·53	177
Meigle (Arthurstone House)	P. Carmichael, Esq.	5	2 3	187 ⅄	28·53	...

DIVISION XVI.—EAST MIDLAND COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain 1884	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
PERTH—(*con.*)						
Meigle (Arthurstone Garden) ...	P. Carmichael, Esq. ...	5	2 3	196 ⊼	29·95	...
Aberfeldy (H.R.S.)	The Station Agent.....	5	3 0	...	41·90	229
Pitlochrie (Sunnybrae).....	A. Buchan, Esq.	...	...	...	43·88	...
Blair Athol.....	Mr. A. Cameron	5	1 0	420 T	38·85	197
D Dalnaspidal (H.R.S.)	The Station Agent.....	5	1 6	1414 T	66·93	255
FORFAR.						
D Broughty Ferry (Douglas Ho.)...	Mr. K. Graham	5	5 6	60 ⊼	27·16	161
D Dundee (Eastern Necropolis) ...	W. B. McKelvie, Esq..	3	0 4	199 T	29·00	139
D†Craigton.....	J. Watson, Esq., C.E.	8	1 0	481	34·29	164
† ,, ...M	,, ,, ,,	11	0 3	481	34·15	...
†Crombie Reservoir .....M	,, ,, ,,	11	0 3	522 T	34·56	...
†Hill Head .....M	,, ,, ,,	11	0 3	570 T	34·46	...
D Arbroath.....	A. Brown, Esq., LL.D.	8	2 0	60 T	24·87	153
D Kirriemuir (Lintrathen)	J. Watson, Esq., C.E.	8	1 0	700	36·28	175
,, (,,) .....M	,, ,, ,,	8	1 0	700	36·60	...
,, (,, Creich Hill)	,, ,, ,,	8	1 0	1500	36·25	...
Montroseness	Bd. of Northern Lights	...	...	...	18·96	...
Montrose (Sunnyside Asylum)...	A. Buchan, Esq.	5	0 5	200	24·29	...

DIVISION XVII.—NORTH EASTERN COUNTIES.

KINCARDINE.						
The Burn [Brechin]	Col. McInroy	4	0 6	255	32·50	...
Fettercairn.....	A. C. Cameron, Esq. ...	5	0 4	230 ⊼	30·37	158
Girdleness	Bd. of Northern Lights	...	4 7	86	17·33	...
ABERDEEN.						
D†Braemar	J. Aitken, Esq.	8	0 9	1114 T	43·50	218
D†Aboyne (Glen Tana)	W.C.Brooks, Esq., M.P.	5	1 0	576	33·10	149
D ,, Castle.....	Mr. G. H. Smythe.....	5	1 0	453 T	22·84	189
Drumoak (Drum Castle).....M	Mr. R. Ewen	5	1 6	275 ⊼	30·48	...
D Cromar (Logie Coldstone Manse).	Rev. G. Davidson	5	1 0	694 ⊼	26·72	193
,, (,, ,, Loanhead).	Mr. A. Farquharson ...	5	1 0	743 ⊼	26·73	212
,, (Tillypronie).....	Mr. R. Littlejohn	5	1 0	1120 ⊼	24·46	184
D Aberdeen (Merlebank)	J. Duncan, Esq.....	5	0 6	76 ⊼	26·34	197
† ,, (Rose Street).....	Dr. A. Cruickshank ...	5	0 5	95 T	24·48	...
D ,, ...	Mr. J. McCormack ...	8	1 9	103	26·47	208
,, (King's College)	The Meteor. Council ...	...	...	...	26·73	188
,, (Gordon's Hospital) ...	A. Buchan, Esq.	8	1 6	63 T	27·73	...
D Midmar (Blackstock)	Mr. J. Barron.....	5	0 8	570 T	22·27	141
D ,, (Dun Echt Observatory)	Rt. Hon. Earl Crawford	8	0 11	461 ⊼	21·65	200
D Monymusk (Cluny Castle)	Mr. G. Milne	6	1 0	280	26·38	132
Inverury (Manar Farm)	Mr. J. Walker	8	15 0	270 ?	25·10	...
,, (Manse)	Rev. J. Davidson	9	0 2	220	27·03	...
Ellon (Kermuck)	Mr. T. Man	11	0 6	300 T	27·96	...
Peterhead (Buchanness)	Bd. of Northern Lights	...	...	...	15·19	153
D New Deer (Artamford Cottage)..	J. Joiner, Esq.....	5	1 0	551 ⊼	29·68	202

DIVISION XVII.—NORTH EASTERN COUNTIES—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
ABERDEEN—(*con.*)						
D Old Deer	J. Walker, Esq.	5	2 0	135 ⅄	29·90	203
,, ,, Manse	Rev. J. Peter	4	0 6	146 ⅄	27·59	...
Kinnairdhead	Bd. of Northern Lights.	...	...	...	22·73	103
BANFF.						
D Keith (H.R.S.)	The Station Agent	5	1 0	364 T	26·34	151
Banff (St. Leonard's)	A. Ramsay, Esq.	5	3 0	115 T	26·83	194
D Boyndie (Whitehills)	Rev. W. Anderson	5	1 0	65 ⅄	26·12	196
Cullen House	Mr. G. Berry	5	1 1	100	24·70	...
ELGIN OR MORAY.						
Grantown	Mr. W. Duncan	5	1 1	712 ⅄	29·51	200
Craigellachie (Wester Elchies Sch)	Mr. J. Milne	8	1 6	560 T	26·85	139
D ,, (,, ,, Garden)	Mr. W. Jamieson	5	1 0	530 T	27·46	165
D Forres (H.R.S.)	The Station Agent	5	1 0	20	18·00	135
Gordon Castle	Mr. Webster	8	1 0	107 ⅄	22·63	...
D Elgin (Highfield)	A. Cameron, Esq.	5	0 11	80 T	19·06	164
NAIRN.						
D Nairn (Acharéidh)	A. Clarke, Esq.	8	1 0	60 T	18·58	176
,, (School Ho.)	The Meteor. Council	8	1 9	84	20·17	173

DIVISION XVIII.—NORTH WESTERN COUNTIES.

WEST ROSS.‡							
D*Loch Alsh (Inverinate House)	Mr. D. McDonald	5	3 0	150	80·57	158
D Strome Ferry (H.R.S.)	The Station Agent	5	1 0	40 T	73·18	262
Applecross Gardens	Mr. D. McCowan	5	0 9	70 ⅄	62·81	...
Strathconan [Beauly]	Mr. D. McIver	5	1 0	450	60·51	193
Loch Vraon	J. D. Baldry, Esq., C.E.	8	0 7	750	79·83	...
Lochbroom (Loch Drome)	,, ,, ,,	8	0 7	850	78·37	...
Braemore House	,, ,, ,,	8	0 7	750	79·90	...
,, Lodge	,, ,, ,,	8	0 7	100	?61·55	...
D Lochbroom	Mr. M. Macleay	5	0 6	48	60·18	214
Isle of Lewis (Stornoway)	Bd. of Northern Lights	...	3 4	31 ?	36·25	163
,, (,,)	The Meteor. Council	8	1 0	24	55·75	270
,, (Butt of Lewis)	Bd. of Northern Lights	...	3 6	...	40·79	197
EAST ROSS.‡							
Achonachie Lodge [Beauly]	W. C. Preston, Esq.	5	1 0	125 B	37·58	233
Cromarty	Bd. of Northern Lights	...	3 4	28 ?	16·36	...
*Invergordon Castle	B. B. Æ. McLeod, Esq.	5	1 0	25 ?	27·05	165
D Alness (Ardross Castle)	Mr. R. Massie	5	1 0	450 ⅄	38·65	213
Fearn (Arboll)	Miss Hope-Douglas	5	1 2	60	18·82	...
D ,, (Lower Pitkerrie)	R. Gordon, Esq.	5	1 0	95	17·49	116
D Edderton	W. E. Cattley, Esq.	5	4 6	120 B	28·46	206

‡ Including Cromarty.

DIVISION XVIII.—NORTH WESTERN COUNTIES—(*continued.*)

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	EAST ROSS—(*con.*)						
	Tarbetness	Bd. of Northern Lights	...	3 4	61 ?	14·32	...
	Tain (Springfield)	Mr. E. McLardy	5	3 5	80	22·36	153
	WEST INVERNESS.						
D	Fort William (Public School)	C. Livingstone, Esq.	5	1 0	36 ⊼	96·94	246
	Moidart (Roshven)	Prof. Blackburn	5	1 0	68 ⊼	79·64	280
D	Loch Shiel (Glenaladale)	Major Macdonald	5	1 2	50 ?	127·33	271
	Glenquoich	A. Buchan, Esq.	8	2 0	660	124·12	...
	Isle of Skye (Oronsay)	Bd. of Northern Lights	...	0 6	15 ?	67·49	200
	,, (Kyle Akin)	,, ,, ,,	...	0 2	3 ?	72·14	176
D	,, (Sligachan)	Mr. Butters	5	1 0	40 T	151·97	231
	Rona	Bd. of Northern Lights	...	...	...	53·06	164
	Barrahead	,, ,, ,,	...	3 0	640 ?	37·90	113
	N. Uist (Monach)	,, ,, ,,	...	...	...	72·40	197
	,, (Loch Maddy)	Mr. G. McKay	5	1 0	...	51·98	...
	Harris (Island Glass)	Bd. of Northern Lights	...	3 4	50 ?	49·82	180
	EAST INVERNESS.						
D	Invergarry House	Mrs. Ellice	5	1 0	...	75·21	141
D	Kingussie	Sergt. A. Fraser	5	1 0	750 T	34·28	222
	Fort Augustus (St. Benedicts)	Rev. W. M. Wall	5	1 6	68 ⊼	47·95	226
D	Aviemore (H.R.S.)	The Station Agent	5	1 0	710	35·73	229
	Strath Errick (Farraline)	Capt. Fraser	3	1 3	700	33·40	...
	Glen Strathfarrer M	Mr. D. Fraser	5	1 0	461 T	53·03	...
	Inverness (High School)	T. D. Wallace, Esq.	8	1 2	114	24·20	...
D	,, (H.R.S.)	The Station Agent	5	1 8	...	26·44	140
†	,, (Culloden House)	D. Forbes, Esq.	6	4 0	104 T	23·20	...
D	Cawdor [Nairn]	J. Joss, Esq.	5	1 0	260	24·22	187

DIVISION XIX.—NORTHERN COUNTIES.

	SUTHERLAND.						
	Invershin	Mr. G. Young	5	4 0	20 T	33·27	...
D	Golspie (H.R.S.)	The Station Agent	5	0 9	27	30·71	105
D	,, (Dunrobin Castle)	Mr. D. Melville	5	1 0	14 ⊼	26·57	154
	,, (,, ,,) M	,, ,,	3	0 3	13 ⊼	27·90	...
	Lairg	A. Buchan, Esq.	3	3 4	451	31·49	...
D	,, (H. R. S.)	The Station Agent	5	...	...	30·60	142
	Assynt (Achumore)	J. Elliot, Esq.	3	0 9	200 T	67·90	...
	Stourhead	Bd. of Northern Lights	...	...	...	31·20	132
D	Kinbrace, (H.R.S.)	The Station Agent	5	1 0	...	33·77	177
	Scourie	J. Simpson, Esq.	3	0 5	28	37·25	...
D	Forsinard (H.R.S.)	The Station Agent	5	1 0	...	33·15	246
	Cape Wrath	Bd. of Northern Lights	3	3 6	355 ?	47·78	146

DIVISION XIX.—NORTHERN COUNTIES—(*continued.*)

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height above Ground.	Rain Gauge. Height above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
CAITHNESS.						
Wick	The Meteor. Council	8	1 9	77	26·38	197
D† ,, (H.R.S.)	The Station Agent	5	1 0	...	30·11	106
† ,, (Nosshead)	Bd. of Northern Lights	8	4 8	127 ?	24·82	111
D†Watten (H.R.S.)	The Station Agent	5	0 9	75 T	27·95	209
Thurso (Holburnhead)	Bd. of Northern Lights	3	0 8	60 ?	30·50	140
Dunnethead	,, ,, ,,	...	3 0	...	34·91	139
Pentland Skerries	,, ,, ,,	...	3 3	72 ?	20·90	151
ORKNEY.						
D S. Ronaldshay (Roeberry)	J. Gray, Esq.	5	1 2	101 T	32·00	214
Hoy (Cantickhead)	Bd. of Northern Lights	...	0 6	...	42·10	112
,, (Graemsay Sound, East=High)	,, ,, ,,	...	3 4	27 ?	35·31	181
,, (,, ,, West=Low)	,, ,, ,,	...	3 4	...	38·81	207
D†Pomona (Tankerness Hall)	J. Johnston, Jr., Esq.	5	0 9	12 L	34·08	232
,, (Kirkwall)	Mr. J. W. Cursiter	3	0 6	30	36·83	225
Shapinsay (Balfour Castle)	Col. Balfour	4	0 6	50	36·60	...
D†Pomona (Sandwick)	The late Rev Dr Clouston	11	2 0	78	35·42	216
Sanda (Start Point)	Bd. of Northern Lights	11	0 6	29 ?	28·48	...
North Ronaldsay	,, ,, ,,	...	3 4	21 ?	34·55	140
SHETLAND.						
Sumburghead	Bd. of Northern Lights	...	...	...	30·99	134
,, (Dunroseness)	The Meteor. Council	8	1 0	84	42·74	258
Bressay Lighthouse	Bd. of Northern Lights	5	0 4	60	56·06	162
D Lerwick (Montfield)	J. M. Goudie, Esq.	5	1 0	60 ?	51·10	263
D Olnafirth School	Mr. J. Irvine	5	1 0	158 T	45·87	232

IRELAND.

DIVISION XX.—MUNSTER.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height above Ground.	Rain Gauge. Height above Sea Level	Depth of Rain. 1884	Days on which 01 or more fell.
			ft. in.	feet.	inches.	
CORK.						
D Dunmanway (Coolkelure)	Col. Shuldham	5	1 6	500 T	73·54	225
Roche's Point	The Meteor. Council	8	1 9	32	41·53	215
Cloyne (Rostellan Castle)	J. Wise, Esq.	8	1 0	25	36·27	200
D Cork (Blackrock)	J. B. Binyon, Esq.	8	6 0	30 T	39·62	194
D ,, (Royal Institution)	Dr. Caulfield	10	50 0	70	33·86	141
D ,, (Sunday's Well Road)	W. Miller, Esq.	5	1 0	115 B	34·21	211
,, (,, ,, ,,)...M	,, ,, ,,	3	1 0	115 B	35·17	...
D Glenville	H. Hudson, Esq., M.D.	8	2 0	514 T	43·48	225
D Fermoy (Gas Works)	Mr. J. Grant	5	...	...	31·67	132
KERRY.						
Kenmare (Derreen)	Mr. W. Holbrow	5	1 0	74 T	67·32	208
D Dromore Castle	R. J. Mahony, Esq.	5	0 6	50 L	60·78	203
Valencia (Telegraph Station)	The Meteor. Council	8	1 0	12	64·17	270
,, (Observatory)	,, ,, ,,	...	2 0	11	63·77	269
Mangerton	Rev. G. R. Wynne	8	2 0	2700 B	79·00	...
D Killarney (Woodlawn)	,, ,, ,,	5	1 1	91 T	63·17	239
,, (Gap of Dunloe) ...M	,, ,, ,,	8	2 6	80	101·90	...
D Dingle	Rev. J. B. Anderson	5	1 0	10 L	54·14	263
D Tralee (Castlemorris)	W. H. Deane, Esq., C.E.	5	1 0	25 L	40·41	274
WATERFORD.						
Waterford (Selborne)	E. A. White, Esq.	5	1 0	80 T	29·05	160
D ,, (Brook Lodge)	C. P. Bolton, Esq., C.E.	5	1 0	100 T	32·16	187
,, (Gas Works)	Mr. Danskin	5	...	...	33·07	...
D Portlaw (Mayfield)	J. Anderson, Esq.	5	4 0	70	39·46	198
Glenam (Clonmel)	Miss Grubb	8	1 4	80 T	37·93	...
TIPPERARY.						
Tipperary (Henry Street)	J. Dowling, Esq., M.D.	5	1 0	400 ?	35·51	206
Fethard (Mobarnane)	Dr. J. Donaldson	...	...	...	26·92	165
D Ballina [Killaloe]	J. Digan, Esq.	10	5 0	115	44·06	199
D Derrycastle [Killaloe]	Mr. T. Manly	5	1 6	580	45·49	234
D Nenagh (The Lodge)	Heber Koe, Esq.	5	1 0	100	34·93	214
D ,, (Castle Lough)	A. Parker, Esq.	5	1 3	120 T	39·48	229
D Ballingarry (Hazelfort)	Mrs. Fraser	5	1 0	...	29·76	210
LIMERICK.						
D Newcastle West	Mr. J. D. Musgrave	5	3 0	219 T	36·47	191
Jane Ville [Tipperary]	R. Harding, Esq.	5	1 0	534	40·92	...
D Limerick (Kilcornan)	Mr. G. Smyth	5	1 0	...	31·46	207

DIVISION XX.—MUNSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which .01 or more fell.
				ft. in.	feet.	inches.	
	CLARE.						
D	Sixmilebridge (Kilkishen)	Rev. E. Lloyd	5	4 4	113 ⅄	37·88	231
D	Ennis	J. Hill, Esq., C.E.	10	3 2	21 L	37·09	207
D	Miltown Malbay	M. Molohan, Esq.	5	1 0	400 T	43·57	250
	Corofin	T. G. Mullins, Esq.	5	1 0	...	35·99	...

DIVISION XXI.—LEINSTER.

	WEXFORD.						
D	New Ross (Longraigue)	J. W. Deane, Esq.	5	1 0	210 T	34·00	179
D	Enniscorthy (Ballyhyland)	J. Moffat, Esq.	5	1 0	365 T	38·55	187
D	Oulart (Wells)	C. M. Doyne, Esq.	5	0 7	...	35·29	161
	Gorey (Courtown House)	Rt Hon Earl of Courtown	5	3 0	80 T	29·53	191
	KILKENNY.						
D	Rosbercon Castle [New Ross]	A. E. Graves, Esq.	6	2 6	60	32·54	146
D	Inistioge (Woodstock)	Lady Louisa Tighe	5	4 6	400 T	36·34	189
	Stoneyford (Inisnag) ...M	Rev. J. Graves	5	1 0	220 ⅄	28·95	...
	Lavistown	D. A. Milward, Esq.	5	2 0	180 T	26·60	168
	WICKLOW.						
D	Enniskerry (Parknasilloge)	Dr. E. E. Barrington	10	4 0	400 B	44·56	200
D†	Bray (Fassaroe)	R. M. Barrington, Esq.	10	5 0	250	36·81	190
	CARLOW.						
D	Carlow (Browne's Hill)	R. C. Browne, Jun., Esq.	5	1 0	291 ⅄	29·19	199
	QUEEN'S COUNTY.						
	Abbey Leix (Blandsfort)	J. L. Bland, Esq.	5	3 0	532 ⅄	30·85	196
	KING'S COUNTY.						
	Parsonstown (Birr Castle)	Rt Hon Earl of Rosse FRS	8	0 7	180	30·98	212
D	,, (,, ,,)	,, ,, ,,	8	0 11	180	30·47	206
D	Portarlington	Dr. Hanlon	5	1 2	240 L	24·31	220
D	Rathangan (Clonbrin)	Mrs. W. Gresson	5	1 4	224 T	26·55	119
	KILDARE.						
D	Straffan House	Mr. F. Bedford	5	2 0	240	28·03	186
	DUBLIN.						
D	Glenesmoel Lodge	F. P. Dixon, Esq., C.E.	5	1 6	800 T	41·70	224
D	,, (Friarstown House)	,, ,, ,,	5	1 6	607 T	33·35	206
D	Dalkey (Bellevue Park)	H. M. Anketell Jones Esq	6	1 0	293	19·88	148
D	Monkstown (Easton Lodge)	Greenwood Pim, Esq.	8	1 0	90	21·60	162
D†	Dublin (Fitz William Square)	Dr. J. W. Moore	5	3 4	54 T	20·47	187
	,, (Upper Leeson Street)	G. D. Powell, Esq., M.D.	5	0 6	49 ⅄	23·56	174
	,, (Phœnix Park)	Capt. Purchas, R.E.	8	1 0	162 ⅄	21·26	234
D	Glasnevin (Botanic Gardens)	F. W. Moore, Esq.	8	0 11	65 ⅄	18·46	152

DIVISION XXI.—LEINSTER—(*continued*).

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Rain Gauge. Height Above Ground	Rain Gauge. Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
			ft. in.	feet.	inches.	
MEATH.						
D Clonee (Williamstown)	W. Johnston, Esq.	5	0 10	200	23·15	198
D Trim	P. Malone, Esq., C.E.	10	4 2	180 T	31·11	170
D Navan (Balrath)	R.W.Walsh, Esq., C.E.	5	2 0	160	24·97	158
D Moynalty (Westland)	W. A. Barnes, Esq.	5	1 4	265	34·45	224
WESTMEATH.						
D Mullingar (Belvedere)	Mr. J. Bayliss	5	1 0	367 T	34·41	139
D Athlone (Twyford)	J. Hodson, Esq.	5	5 0	188 ⅄	43·77	228
LOUTH.						
Louth (Stephenstown)	Col. Fortescue	5	0 11	75 ⅄	28·31	211
D Dundalk (Farndreg)	J. Barton, Esq.	5	1 0	90 T	26·82	157
Ravensdale Park	Rt. Hon. Lord Clermont	8	1 0	360 T	39·66	175
D Greenore	T. Chambers, Esq.	5	1 0	4 L	26·92	194
LONGFORD.						
Edgworthstown (Currygrane Ho)	J. M. Wilson, Esq.	8	1 0	265 T	37·92	146

DIVISION XXII.—CONNAUGHT.

GALWAY.						
D Shannon Grove [Banagher]	F. A. Waller, Esq.	5	...	...	29·01	191
D Galway (Spiddle)	E. P. Tyacke, Esq.	...	1 0	20 ?	46·10	237
D ,, (Queen's College)	Mr. W. Ryan	5	1 0	22	39·89	216
D Ballinasloe (Kilconnell)	Rev. Canon Muriel	5	2 6	320 T	43·59	228
D ,,	W. H. Kempster, Esq.	5	0 6	150 ⅄	36·74	237
D ,, (Garbally)	Mr. J. Cobban	8	1 0	157 ⅄	39·76	234
D Ahascragh (Clonbrock)	Rt.Hon.Lord Clonbrock	10	5 6	200 T	41·60	163
Tuam (Gardenfield) M	H. Kirwan, Esq.	5	1 0	155 T	48·23	...
,, (,,) ... *Snowdon*	,, ,, ,,	5	6 0	160 T	46·37	...
MAYO.						
Ballinrobe (Creagh)	Mrs. Knox	5	1 0	80	56·26	...
,, (Kilrush)	J. Simson, Esq.	5	0 9	120 T	45·87	...
Westport (Oldhead House)	H. Wilbraham, Esq.	3	1 7	100 T	58·80	...
D Crossmolina (Enniscoe)	J. Pratt, Esq.	5	0 11	50 ?	54·17	238
SLIGO.						
D Collooney (Markree Observatory)	A. Marth, Esq.	5	16 6	148 ⅄	37·40	255
,, (,, ,,)	,, ,, ,,	38	16 6	148 ⅄	40·80	256
D Sligo (Mount Shannon)	F. M. Olpherts, Esq.	5	4 5	70 B	43·15	218
Mullaghmore	The Meteor. Council	8	1 2	40	47·00	252
LEITRIM.						
D Carrick-on-Shannon	R.Bradshaw,Esq.,M.D.	5	1 0	150 ?	38·80	214
D Ballinamore (Lawderdale)	J. O. Lawder, Esq.	5	1 0	275 T	45·45	247

DIVISION XXIII.—ULSTER.

STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground ft.	Height Above Ground in.	Height Above SeaLevel feet.	Depth of Rain. 1884 inches.	Days on which 0·1 or more fell.
CAVAN.							
D Belturbet (Red Hills)	Rev. E. B.W. Venables	5	0	9	208 ⅄	36·25	203
FERMANAGH.							
Enniskillen (Florence Court)	Earl of Enniskillen FRS	8	1	9	250 T	50·19	217
,, (Lisbellaw)	R. Eadie, Esq.	5	1	0	200 ?	38·00	221
,, (,,) M	,, ,, ,,	5	1	0	200 ?	40·29	...
Brookboro' (Colebrook Park)	The Meteor. Council	...	1	0	240	43·11	188
MONAGHAN.							
D Rockcorry	Mr. W. R. Loudon	5	1	0	290 ⅄	31·54	191
ARMAGH.							
Flurrybridge	Rt. Hon. Lord Clermont	8	1	0	340 ⅄	35·79	153
D Edward St. Station [Newry]	J. L. D. Meares, Esq.	5	1	0	22 ⅄	33·32	141
D Armagh Observatory	Dr. Dreyer	10	1	7	208 ⅄	34·55	239
,, ,,	The Meteor. Council	...	2	0	204	35·00	245
D Lurgan (Belle Vue)	F. W. Bell, Esq.	5	0	4	200 T	32·50	207
DOWN.							
D Kilkeel	Rev. E. O'Brien Pratt	5	1	6	40	26·14	189
D Warrenpoint (Summer Hill)	Mr. B. M. Kernan	5	1	0	30 L	35·83	160
Newcastle (Fairleigh)	Rev. J. H. Seymour	5	1	2	12	51·42	192
D Bryansford	C. Brownlow, Esq.	5	1	0	290 ⅄	50·11	201
D Rathfryland (Ballynagappoge)	J.Smyth,jun. Esq.,C.E.	5	3	0	300	31·40	129
D Castlewellan (Lough Island)	,, ,, ,,	10	3	0	442 T	40·60	107
D Rathfryland	B. B. Meek, Esq.	5	1	0	500	31·38	117
Banbridge (Katesbridge)	A. Mulligan, Esq.	5	1	0	230	27·04	...
D Seaforde	Col. Forde	8	0	5	180 ⅄	35·94	215
D Banbridge (Corbet Reservoir)	J.Smyth, jun., Esq.C.E.	10	3	0	234 T	30·20	135
D† ,, (Milltown)	,, ,, ,,	8	0	8	200 T	30·36	207
D†Waringstown	Major Waring	8	0	8	191 ⅄	31·94	201
D Newtownards	Mr. W. Craig	5	1	7	10	31·04	178
D Sydenham (Alma House)	R. Reade, Esq.	5	1	0	60	41·24	212
Donaghadee	The Meteor. Council	8	1	6	30	36·33	215
ANTRIM.							
D Aghalee [Lurgan]	Lancelot Turtle, Esq.	5	1	0	105 ⅄	32·51	195
D†Belfast (Queen's College)	Mr. W. Taylor	11	7	4	68 ⅄	33·28	190
D ,, (New Barnsley)	J. Firth, Esq.	5	1	0	200 T	41·37	218
D† ,, (Antrim Road)	G. Thompson, Esq.	7	7	0	144 T	34·57	217
,, (Divis Mountain)	L. M. Ewart, Esq.	8	1	0	1350 B	42·50	...
,, (Glenbank)	,, ,, ,,	5	1	0	360 B	49·30	...
†Antrim (The Manse)	Rev. J. H. Orr	5	1	0	150 ⅄	34·11	182
D Ballymena (Harryville)	A. Dawson, Esq.	5	1	0	150 T	41·97	270
D Broughshane (Quolie)	J. Lanyon, Esq., C.E.	5	1	1	800	51·13	207
D Cushendall (Cushendun)	Rev. St. A. Brenan	5	1	0	25 T	46·49	234
D Bushmills	Mr. D. Elliott	5	1	0	33 T	41·24	244
,, (Dundarave)	Sir F.E. Macnaghten, Bt	5	1	3	162 T	42·54	236

DIVISION XXIII.—ULSTER—(*continued*).

	STATIONS.	AUTHORITIES.	Rain Gauge. Diameter	Height Above Ground	Height Above Sea Level	Depth of Rain. 1884	Days on which ·01 or more fell.
				ft. in.	feet.	inches.	
	LONDONDERRY.						
D	Dungiven	J. M. Moore, Esq., M.D.	5	1 0	295	46·56	237
D	Garvagh (Moneydig)	Miss Morrison	...	1 0	121	44·38	234
D	Londonderry (Knockan)	Rev. H. F. Stevenson..	5	1 0	300	48·94	245
	,, (Clooney Terrace)..	Mr. J. Conroy	5	1 0	94 T	43·32	246
D	,, (Creggan Res.)	Mr. J. Hutchinson	8	1 0	320 T	43·57	253
D	Limavady	C. D. H. Campbell, Esq.	5	4 0	81 T	37·18	247
D	,, (Drenagh)	C. T. McCausland, Esq	5	1 0	80	39·83	241
	Bellarena	Sir F. W. Heygate, Bt.	5	1 0	12 T	41·12	219
	Coleraine	A. D. Williamson, Esq.	5	1 4	25 T	45·68	198
D	,,	C. D. H. Campbell, Esq.	5	1 0	166 T	39·09	257
D	,,	J. Kennedy, Esq.	5	4 0	52 T	42·59	235
	TYRONE.						
	Auchnacloy	Rev. T. G. Stokes	5	...	...	35·19	...
	Moy (Derrygally)	W. McG. Bond, Esq.	5	6 0	60 ?	35·74	...
	,, (,,)	,, ,, ,,	10	6 0	60 ?	33·34	173
D	Stewartstown (The Square)	A. Johnston, Esq.	5	1 4	300 T	37·60	186
	Dungannon (Rockdale)	Col. Lowry	5	1 0	300 T	39·66	...
	,, (,,) M	,, ,,	5	1 0	260 T	40·29	...
D	Stewartstown (Ardtrea Rectory)	Rev. W. E. Meade, D.D.	5	1 0	191 T	37·66	209
D	Omagh (Edenfel)	Col. Buchanan	8	1 0	280 T	40·18	245
	DONEGAL.						
	Castlefinn (Finn Lodge)	Sir F. W. Heygate, Bt.	5	1 0	12	41·15	236
	Raphoe (Convoy Ho.)	Col. Montgomery	5	1 0	110 T	56·25	253
D	Ramelton (Killygarvan)	C. H. Cochrane, Esq.	5	0 10	11 L	48·24	248
D	Buncrana (Rockfort)	T. Colquhoun, Esq.	5	1 0	40	43·15	239
D	,, (Sea View)	J. Hunter, Esq.	5	1 0	15 L	43·67	250
D	Moville	Mr. J. Lowry	8	1 6	78 L	43·23	243

G. J. S.

RULES FOR OBSERVERS.

As it scarcely seems wise to add yearly to the weight and bulk of this volume by re-printing the rules, I think that it will be equally effectual if I state that a copy of *Arrangements for the Systematic Observation of Rainfall* will be sent gratis and post free to any address on a line being addressed to G. J. Symons, 62, Camden Square, N.W.